pRack PR100

compressor rack controller

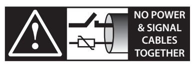
CAREL



ENG **Quick guide**

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READ AND SAVE
THESE INSTRUCTIONS



READ CAREFULLY IN THE TEXT!

Integrated Control Solutions & Energy Savings

IMPORTANT

CAREL bases the development of its products on decades of experience in HVAC, on the continuous investments in technological innovations to products, procedures and strict quality processes with in-circuit and functional testing on 100% of its products, and on the most innovative production technology available on the market. CAREL and its subsidiaries nonetheless cannot guarantee that all the aspects of the product and the software included with the product respond to the requirements of the final application, despite the product being developed according to start-of-the-art techniques. The customer (manufacturer, developer or installer of the final equipment) accepts all liability and risk relating to the configuration of the product in order to reach the expected results in relation to the specific final installation and/or equipment. CAREL may, based on specific agreements, act as a consultant for the positive commissioning of the final unit/application, however in no case does it accept liability for the correct operation of the final equipment/system.

The CAREL product is a state-of-the-art product, whose operation is specified in the technical documentation supplied with the product or can be downloaded, even prior to purchase, from the website www.CAREL.com.
Each CAREL product, in relation to its advanced level of technology, requires setup / configuration / programming / commissioning to be able to operate in the best possible way for the specific application. The failure to complete such operations, which are required/indicated in the user manual, may cause the final product to malfunction; CAREL accepts no liability in such cases.
Only qualified personnel may install or carry out technical service on the product.
The customer must only use the product in the manner described in the documentation relating to the product.

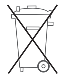
In addition to observing any further warnings described in this manual, the following warnings must be heeded for all CAREL products:
- Prevent the electronic circuits from getting wet. Rain, humidity and all types of liquids or condensate contain corrosive minerals that may damage the electronic circuits. In any case, the product should be used or stored in environments that comply with the temperature and humidity limits specified in the manual.
- Do not install the device in particularly hot environments. Too high temperatures may reduce the life of electronic devices, damage them and deform or melt the plastic parts. In any case, the product should be used or stored in environments that comply with the temperature and humidity limits specified in the manual.
- Do not attempt to open the device in any way other than described in the manual.
- Do not drop, hit or shake the device, as the internal circuits and mechanisms may be irreparably damaged.
- Do not use corrosive chemicals, solvents or aggressive detergents to clean the device.
- Do not use the product for applications other than those specified in the technical manual.

All of the above suggestions likewise apply to the controllers, serial boards, programming keys or any other accessory in the CAREL product portfolio.
CAREL adopts a policy of continual development. Consequently, CAREL reserves the right to make changes and improvements to any product described in this document without prior warning.

The technical specifications shown in the manual may be changed without prior warning.

The liability of CAREL in relation to its products is specified in the CAREL general contract conditions, available on the website www.CAREL.com and/or by specific agreements with customers; specifically, to the extent where allowed by applicable legislation, in no case will CAREL, its employees or subsidiaries be liable for any lost earnings or sales, losses of data and information, costs of replacement goods or services, damage to things or people, downtime or any direct, indirect, incidental, actual, punitive, exemplary, special or consequential damage of any kind whatsoever, whether contractual, extra-contractual or due to negligence, or any other liabilities deriving from the installation, use or impossibility to use the product, even if CAREL or its subsidiaries are warned of the possibility of such damage.

DISPOSAL



INFORMATION FOR USERS ON THE CORRECT HANDLING OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

In reference to European Union directive 2002/96/EC issued on 27 January 2003 and the related national legislation, please note that:
- WEEE cannot be disposed of as municipal waste and such waste must be collected and disposed of separately;
- the public or private waste collection systems defined by local legislation must be used. In addition, the equipment can be returned to the distributor at the end of its working life when buying new equipment;
- the equipment may contain hazardous substances: the improper use or incorrect disposal of such may have negative effects on human health and on the environment;
- the symbol (crossed-out wheeled bin) shown on the product or on the packaging and on the instruction sheet indicates that the equipment has been introduced onto the market after 13 August 2005 and that it must be disposed of separately;
- in the event of illegal disposal of electrical and electronic waste, the penalties are specified by local waste disposal legislation.

Warranty on the materials: 2 years (from the date of production, excluding consumables).

Approval: the quality and safety of CAREL INDUSTRIES Hqs products are guaranteed by the ISO 9001 certified design and production system.

WARNING: separate as much as possible the probe and digital input signal cables from the cables carrying inductive loads and power cables to avoid possible electromagnetic disturbance. Never run power cables (including the electrical panel wiring) and signal cables in the same conduits.



Key icone

	NOTE:	to bring attention to a very important subject; in particular, regarding the practical use of the various functions of the product.
	IMPORTANT:	to bring critical issues regarding the use of the pRack PR100 to the attention of the user.
	TUTORIAL:	some simple examples to accompany the user in configuring the most common settings.

Content

1. START UP

1.1 Starting the first time

After having correctly installed pRack, as described in the User Manual cod. +0300011EN, a number of preliminary operations are required to configure the installation.

Tutorial: the pRack PR100 configuration procedure varies according to the complexity of the installation:

A. **systems with only one board and maximum one external terminal.** In this case, simply connect the terminal (if not built-in), power up the board and select one of the configuration solutions described below.
B. **systems with more than one board in pLAN or two external terminals**. In this case, the additional operations described in Appendix A. 2 of the User Manual cod.+0300011EN need to be completed before proceeding with configuration.

The procedure for configuring an installation described below is the same for all system configurations that feature just one pRack PR100 board, and for system configurations with more than one board connected in a pLAN.

When first starting the pRack PR100 board, after waiting around 1 minute, a screen is shown for choosing the language used to display the program (English or Italian). Press ENTER (↵) to change the language displayed, while pressing ESC displays the following screen.

Note: If no option is chosen within a time set by parameter and visible on the screen, the current language remains selected.

Note: pRack PR100 is available as standard with English and Italian languages loaded on board. Other languages are available at ksa.carel.com that can be loaded onto the control using the pRack Manager software, following the procedure described in Chap. 10 of the User Manual cod.+0300011EN.

After having selected the user interface language, the pRack PR100 software shows a screen for choosing between three possible system configuration solutions, as follows:

- Pre-configurations
- Wizard
- Advanced configuration.

Important: after having configured the system, the configuration can be modified, it can be modified by repeating the same procedure, making sure the Carel default values have been reset as described in paragraph 6.8.2 of the User Manual cod.+0300011EN.

Important: after having configured the system, power down the controller and power up again.

1.2 Pre-configurations

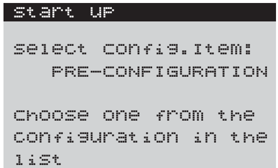


Fig. 1.a

This solution is used to choose between thirteen configurations pre-loaded in the pRack PR100 software. For the description of the pre-configurations see the table below, while for the complete description of each configuration see Chap.2.
pRack PR100 automatically configures the inputs and outputs as described in paragraph 4.1.4 of the User Manual cod.+0300011EN; for details on the inputs and outputs associated with each pre-configuration, see Chap. 2.

1.3 Wizard

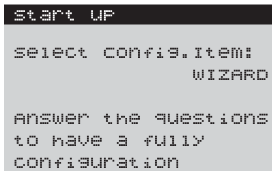


Fig. 1.b

This solution is used to obtain the recommended configuration for the specific installation. By responding to a series of questions, screen by screen, the user is guided through the selection of the devices present.
Once the guided selection procedure has been completed, the end result (report) is shown, and if the configuration is suitable the parameters to start operation of the pRack PR100 can be installed directly, including those associated with the inputs and outputs as described in parag. 4.1.4 of the User Manual cod.+0300011EN.

Note: after having configured the parameters using the Wizard, the configuration can be modified manually, within the context of the selected

system configuration.

Important: before starting the pRack PR100, carefully check the settings made automatically by the software.

Tutorial: The following paragraph shows a configuration example using the Wizard for an installation with two suction lines.

1.4 Example of configuring a system with 2 suction and condenser lines using the Wizard

Below is a possible example of using the Wizard to configure a typical system like the one shown in the figure, with 2 suction lines and 2 condenser lines on different boards:

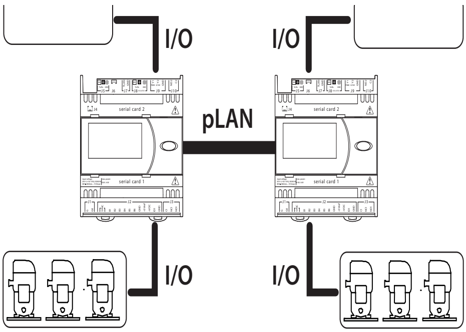


Fig. 1.c

The preliminary operations to be completed before configuration are as follows:

1. with the boards not connected in the pLAN, power up the second pRack board and set the pLAN address to 2 (for details see Appendix A.2 of the User Manual cod.+0300011EN)
2. power down and connect the two boards in the pLAN, plus any terminals, as described in paragraph 3.7 of the User Manual cod.+0300011EN.
3. power up the boards and wait for the Wizard selection screen to be displayed

Then select the type of system as SUCTION & CONDENSER:

```
Wizard                 Ib01
Type of installation:
 SUCTION & CONDENSER
```

Fig. 1.d

Set the type of compressors and control for suction line 1, answering the questions prompted by the pRack PR100 software, e.g.:

```
Wizard                 Ib03
Compressor config.

Compressor type:
          RECIPROCATING

Compressor number:     3
```

Fig. 1.e

```
Wizard                 Ib40
Compressor config.
Regulation by:
               PRESSURE
Measure unit:      barg

Refrigerant:      R404A
```

Fig. 1.f

```
Wizard                 Ib41
Compressor config.
Regulation type:
      PROPORTIONAL BAND

Enable integral time
action:             YES
```

Fig. 1.g

After having configured suction line 1, a prompt will be shown to configure another suction line, obviously the answer is YES:

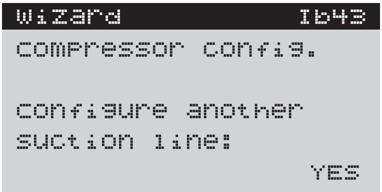


Fig. 1.h

To the next question, which prompts if there is a pRack board dedicated to the second line, answer YES; in this way, the pRack PR100 software prepares to configure the board with address 2 in the pLAN:

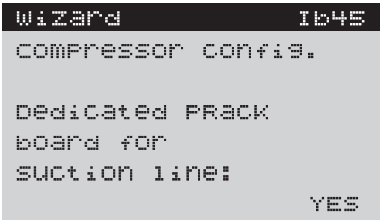


Fig. 1.i

After having answered the questions for the configuration of the second suction line, the software then asks if there is a pLAN board dedicated to condenser line 1. In the case shown in the example, answer NO.

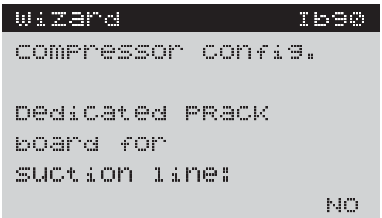


Fig. 1.j

After having configured condenser line 1, the software asks if condenser line 2 is used; answer YES:

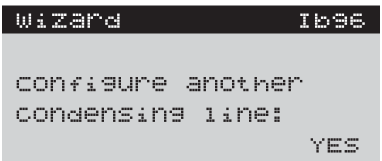


Fig. 1.k

After having also configured the second condenser line, the software asks if a summary should be displayed of the settings made:

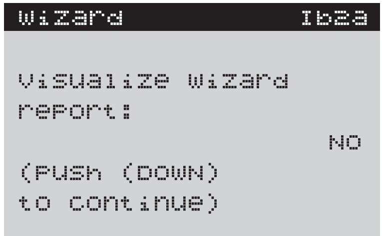


Fig. 1.l

If the settings are correct, the set values can be installed:



Fig. 1.m

After waiting a few seconds, the unit can be started.

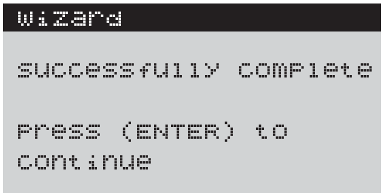


Fig. 1.n

Note: after having configured pRack PR100, the device needs to be switched off and on again to permanently save the new data.

1.5 Advanced configuration

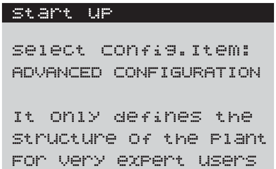


Fig. 1.o

This solution is used to establish the configuration of the pLAN structure required for correct system operation.
Once the procedure for selecting the various factors that affect the final configuration has been completed, the pRack PR100 software verifies whether the pLAN configuration is exact and prepares the user interface for configuration of the parameters that need to be set manually by the user.

Important: this configuration solution is only recommended for expert users, as all the system parameters need to be set manually

2. PRE-CONFIGURATION

Here below there are listed the configuration pre-set in the pRack software with the related features.
To enter the pre-configuration list it is necessary to select the item PRE-CONFIGURATION in the screen shown by pRack software at start up (see Chapter 1).

Summary of pre-configurations

			compressors					fans		Units in the pLAN(as well as the terminal)	pRack PR100 Version
N°	index	lines	type	N°	capacity step	modulation	No. of comp. alarms	N°	inverter		
1	RS2	1	Piston - Scroll	2	-	-	1	2	-	1	Compact
2	RS3	1	Piston - Scroll	3	-	-	1	3	-	1	Small
3	RS3p	1	Piston - Scroll	3	1	-	2	1	Inverter	1	Medium
4	RS3i	1	Piston - Scroll	3		Inverter	3	1	Inverter	1	Medium
5	RS4	1	Piston - Scroll	4	-	-	2	4	-	1	Medium
6	RS4i	1	Piston - Scroll	4	-	Inverter	3	1	Inverter	1	Large
7	SL3d	1	Scroll	3	-	Digital	1	2	-	1	Medium
8	SL5d	1	Scroll	5	-	Digital	1	1	Inverter	1	Medium
9	SW1	1	Screw	1	2	-	2	2	-	1	Small
10	SW2	1	Screw	2	2	-	2	1	Inverter	1	Small
11	d-RS2	2	Piston - Scroll	2	-	-	1	2	-	1	Medium
				2	-	-	1				
12	d-RS3	2	Piston - Scroll	3	-	-	1	3	-	1	Large
				3	-	-	1	3	-		
13	d-RS4	2	Piston - Scroll	4	-	Inverter	3	1	Inverter	1,2	Medium + Medium
				4	-	Inverter	3	1	Inverter		

Tab. 2.a

2.1 Pre-configuration 1: RS2

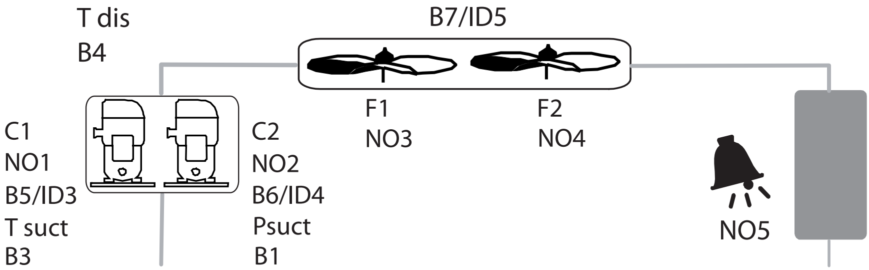


Fig. 2.a

Description

2 reciprocating/ scroll compressors
2 fans
1 generic alarm for each compressor
1 generic alarm for condensers
HP/LP pressostats
pRack compact, PRK100X**

I/O list

Digital outputs

pRack PR100 Compact	pRack PR100 S, M, L, XL	
NO1	NO1	Compressor 1
NO2	NO2	Compressor 2
NO3	NO3	Fan 1
NO4	NO4	Fan 2
NO5	NO5	Alarms output

Digital inputs

ID1	ID1	Suction HP pressostat
ID2	ID2	Suction LP pressostat
B5	ID3	Generic compressor 1 alarm
B6	ID4	Generic compressor 2 alarm
B7	ID5	Generic condenser alarm

Analog inputs

B1	B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B3	B3	Suction temperature probe	NTC	
B4	B4	Discharge temperature probe	HTNTC	

Tab. 2.b

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01	PRESSURE
Suction regulation type	Cab01	NEUTRAL ZONE
Suction setpoint	Cab03	3.5,barg
Suction differential	Cab08	0.3 barg
Compressors rotation type	Caf10	FIFO
Refrigerant	Caf04	R404A
High suction pressure alarm threshold	Cae24	6.0 barg
Low suction pressure alarm threshold	Cae26	0.0 barg
Condenser regulation by	Dab01	TEMPERATURE
Condenser regulation type	Dab01	PROPORTIONAL BAND
Condenser setpoint	Dab03	30.0 °C
Condenser differential	Dab09	2.0 °C
High condenser pressure alarm threshold	Dae01	55.0 °C
Low condenser pressure alarm threshold	Dae03	5.0 °C

Tab. 2.c

2.2 Pre-configuration 2: RS3

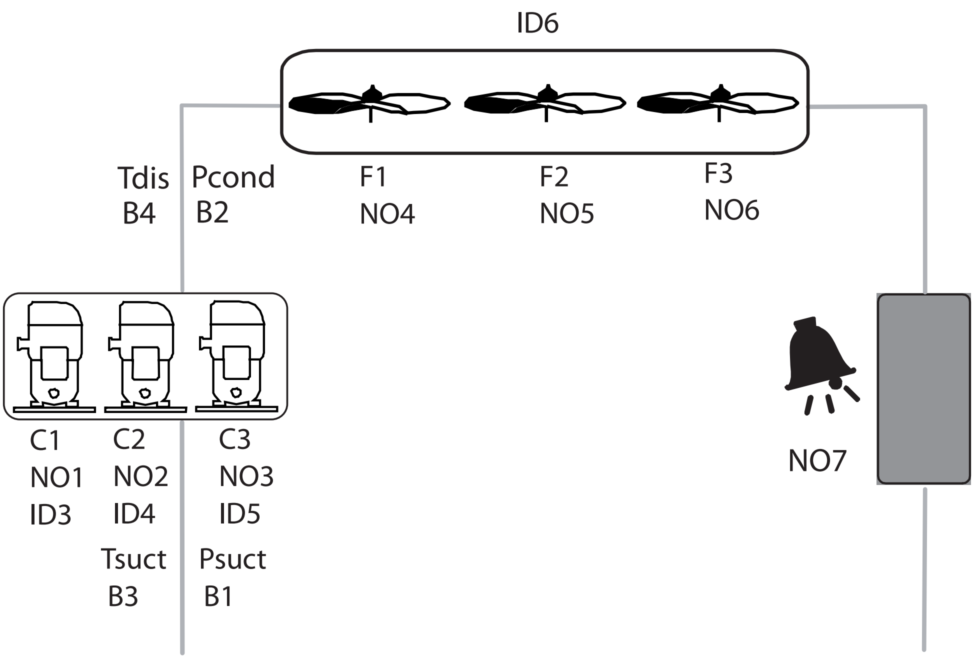


Fig. 2.b

Description
3 reciprocating/ scroll compressors
3 fans
1 generic alarm for each compressor
1 generic alarm for condenser
HP/LP pressostats
pRack S, PRK100S**

I/O list

Digital outputs	
NO1	Compressor 1
NO2	Compressor 2
NO3	Compressor 3
NO4	Fan 1
NO5	Fan 2
NO6	Fan 3
NO7	Alarms output

Digital inputs	
ID1	Suction HP pressostat
ID2	Suction LP pressostat
ID3	Generic compressor 1 alarm
ID4	Generic compressor 2 alarm
ID5	Generic compressor 3 alarm
ID6	Common fan overload

Analog inputs			
B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction temperature probe	NTC	
B4	Discharge temperature probe	HTNTC	

Tab. 2.d

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01	PRESSURE
Suction regulation type	Cab01	NEUTRAL ZONE
Suction setpoint	Cab03	3.5,barg
Suction differential	Cab08	0.3 barg
Compressors rotation type	Caf10	FIFO
Refrigerant	Caf04	R404A
High suction pressure alarm threshold	Cae24	6.0 barg
Low suction pressure alarm threshold	Cae26	0.0 barg
Condenser regulation by	Dab01	PRESSURE
Condenser regulation type	Dab01	PROPORTIONAL BAND
Condenser setpoint	Dab03	12.0 barg
Condenser differential	Dab07	2.0 barg
High condenser pressure alarm threshold	Dae01	24.0 barg
Low condenser pressure alarm threshold	Dae03	7.0 barg

Tab. 2.e

2.3 Pre-configuration 3: RS3p

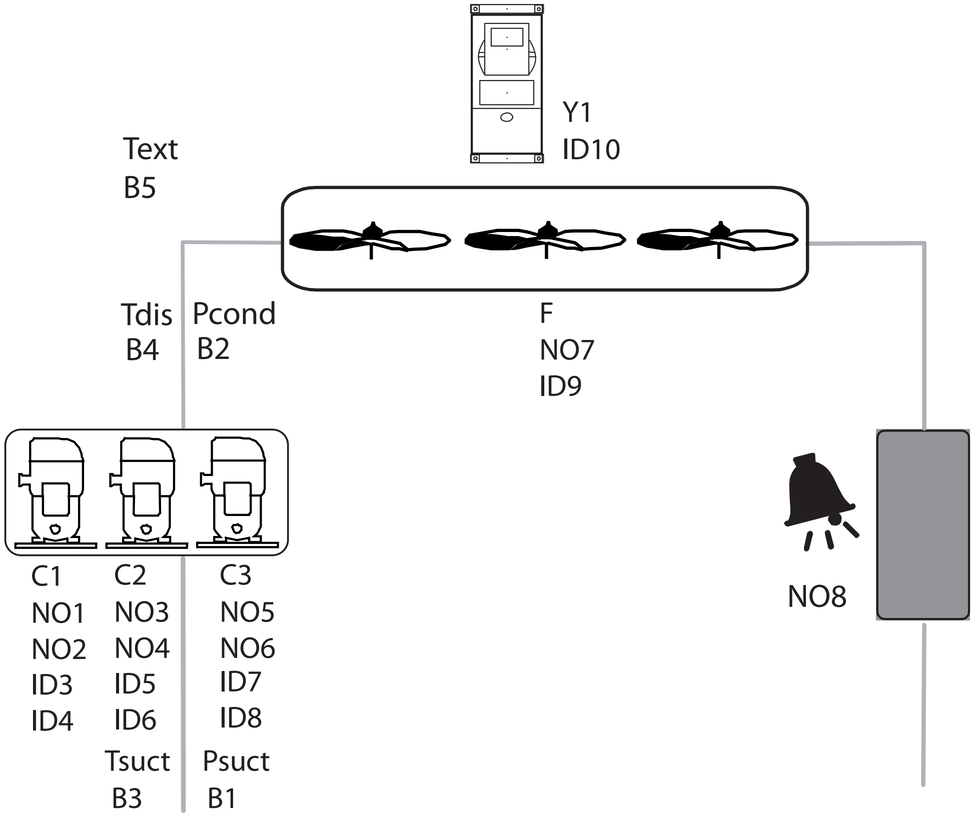


Fig. 2.c

Description
3 reciprocating compressors with one unloader each
1 fan stage with inverter
2 alarms for each compressor: thermal overload, oil
1 generic alarm for condenser
HP/LP pressostats
pRack M, PRK100M*

I/O list

Digital outputs	
NO1	Compressor 1
NO2	Compressor 1, unloader
NO3	Compressor 2
NO4	Compressor 2, unloader
NO5	Compressor 3
NO6	Compressor 3, unloader
NO7	Fan
NO8	Alarms output

Digital inputs	
ID1	Suction HP pressostat
ID2	Suction LP pressostat
ID3	Compressor 1, thermal overload alarm
ID4	Compressor 1, oil alarm
ID5	Compressor 2, thermal overload alarm
ID6	Compressor 2, oil alarm
ID7	Compressor 3, thermal overload alarm
ID8	Compressor 3, oil alarm
ID9	Common fan overload
ID10	Inverter alarm

Analog outputs	
Y1	Common condenser inverter

Analog inputs			
B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction temperature probe	NTC	
B4	Discharge temperature probe	HTNTC	
B5	External temperature probe	NTC	

Tab. 2.f

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01	PRESSURE
Suction regulation type	Cab03	NEUTRAL ZONE
Suction setpoint	Cab08	3.5,barg
Suction differential	Caf10	0.3 barg
Compressors rotation type	Caf04	FIFO
Refrigerant	Cae24	R404A
High suction pressure alarm threshold	Cae26	6.0 barg
Low suction pressure alarm threshold	Cab01	0.0 barg
Condenser regulation by	Dab01	PRESSURE
Condenser regulation type	Dab03	PROPORTIONAL BAND
Condenser setpoint	Dab07	12.0 barg
Condenser differential	Dae01	2.0 barg
High condenser pressure alarm threshold	Dae03	24.0 barg
Low condenser pressure alarm threshold	Cab01	7.0 barg

Tab. 2.g

2.4 Pre-configuration 4: RS3i

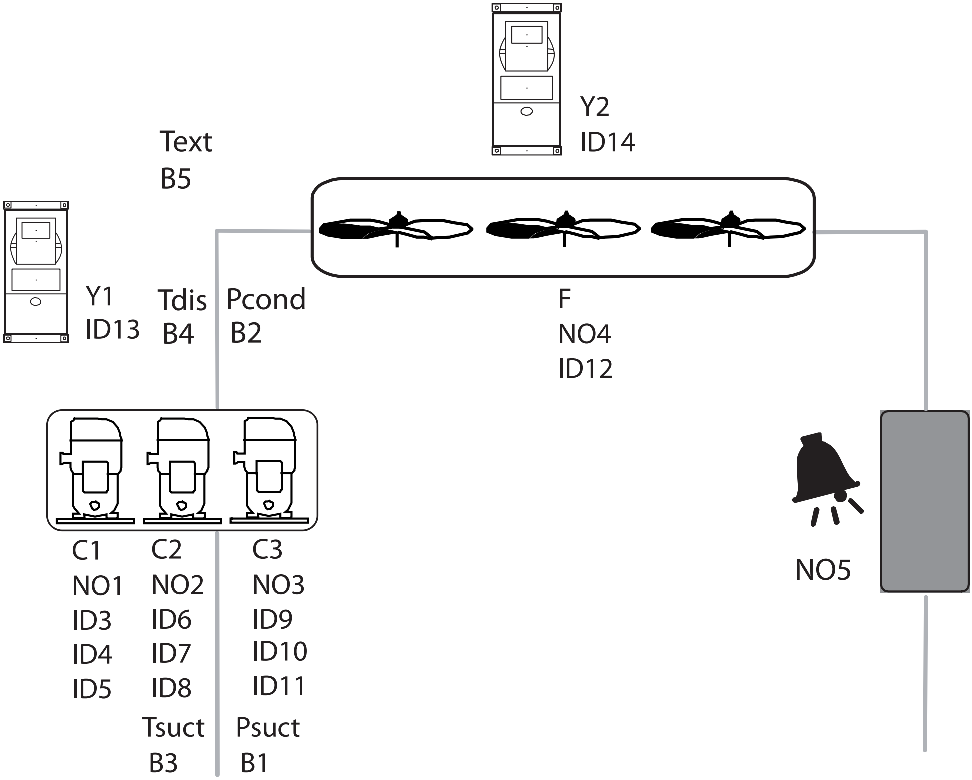


Fig. 2.d

Description
3 reciprocating compressors, the first with inverter
1 fan stage with inverter
3 alarms for each compressor: thermal overload, oil, HP/LP
1 generic alarm for condenser
HP/LP pressostats
pRack M, PRK100M

I/O List

Digital outputs	
NO1	Compressor 1
NO2	Compressor 2
NO3	Compressor 3
NO4	Fan 1
NO5	Alarms output

Digital inputs	
ID1	Suction HP pressostat
ID2	Suction LP pressostat
ID3	Compressor 1, thermal overload alarm
ID4	Compressor 1, oil alarm
ID5	Compressor 1, HP/LP alarm
ID6	Compressor 2, thermal overload alarm
ID7	Compressor 2, oil alarm
ID8	Compressor 2, HP/LP alarm
ID9	Compressor 3, thermal overload alarm
ID10	Compressor 3, oil alarm
ID11	Compressor 3, HP/LP alarm
ID12	Common fan overload
ID13	Compressor inverter alarm
ID14	Condenser inverter alarm

Analog outputs		
Y1	First compressor inverter	0...10 Vdc
Y2	Condenser inverter	0...10 Vdc

Analog inputs			
B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction temperature probe	NTC	
B4	Discharge temperature probe	HTNTC	
B5	External temperature probe	NTC	

Tab. 2.h

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01	PRESSURE
Suction regulation type	Cab01	NEUTRAL ZONE
Suction setpoint	Cab03	3.5,barg
Suction differential	Cab08	0.3 barg
Compressors rotation type	Caf10	FIFO
Refrigerant	Caf04	R404A
High suction pressure alarm threshold	Cae24	6.0 barg
Low suction pressure alarm threshold	Cae26	0.0 barg
Condenser regulation by	Dab01	PRESSURE
Condenser regulation type	Dab01	PROPORTIONAL BAND
Condenser setpoint	Dab03	12.0 barg
Condenser differential	Dab07	2.0 barg
High condenser pressure alarm threshold	Dae01	24.0 barg
Low condenser pressure alarm threshold	Dae03	7.0 barg

Tab. 2.i

2.5 Pre-configuration 5: RS4

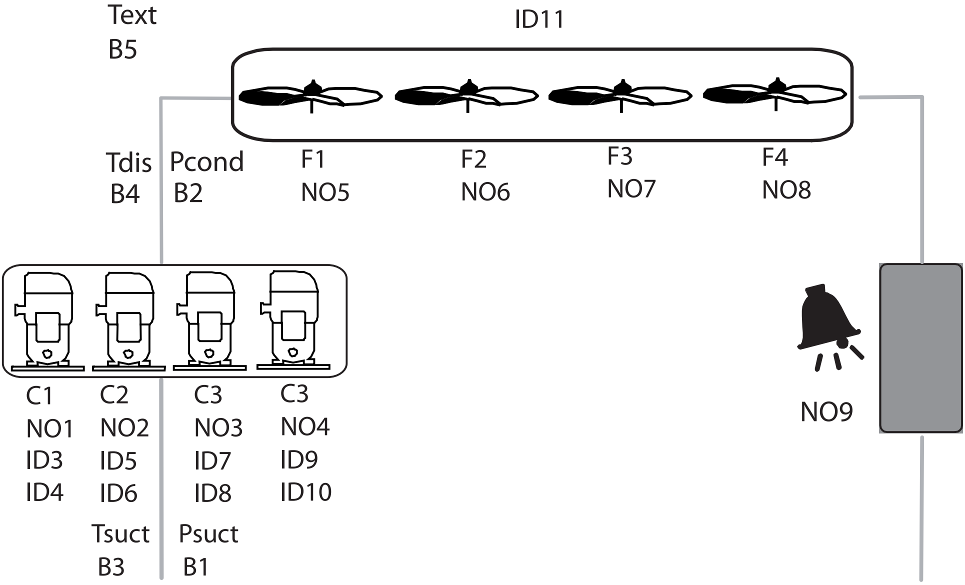


Fig. 2.e

Descrizption
4 reciprocating/ scroll compressors
4 fans
2 alarms for each compressor: thermal overload, oil
1 generic alarm for condenser
HP/LP pressostats
pRack M, PRK100M*

I/O List

Digital outputs	
NO1	Compressor 1
NO2	Compressor 2
NO3	Compressor 3
NO4	Compressor 4
NO5	Fan1
NO6	Fan2
NO7	Fan3
NO8	Fan4
NO9	Alarms output

Digital inputs	
ID1	Suction HP pressostat
ID2	Suction LP pressostat
ID3	Compressor 1, thermal overload alarm
ID4	Compressor 1, oil alarm
ID5	Compressor 2, thermal overload alarm
ID6	Compressor 2, oil alarm
ID7	Compressor 3, thermal overload alarm
ID8	Compressor 3, oil alarm
ID9	Compressor 4, thermal overload alarm
ID10	Compressor 4, oil alarm
ID11	Common fan overload

Analog inputs			
B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction temperature probe	NTC	
B4	Discharge temperature probe	HTNTC	
B5	External temperature probe	NTC	

Tab. 2.j

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01	PRESSURE
Suction regulation type	Cab01	NEUTRAL ZONE
Suction setpoint	Cab03	3.5,barg
Suction differential	Cab08	0.3 barg
Compressors rotation type	Caf10	FIFO
Refrigerant	Caf04	R404A
High suction pressure alarm threshold	Cae24	6.0 barg
Low suction pressure alarm threshold	Cae26	0.0 barg
Condenser regulation by	Dab01	PRESSURE
Condenser regulation type	Dab01	PROPORTIONAL BAND
Condenser setpoint	Dab03	12.0 barg
Condenser differential	Dab07	2.0 barg
High condenser pressure alarm threshold	Dae01	24.0 barg
Low condenser pressure alarm threshold	Dae03	7.0 barg

Tab. 2.k

2.6 Pre-configurazione 6: RS4i

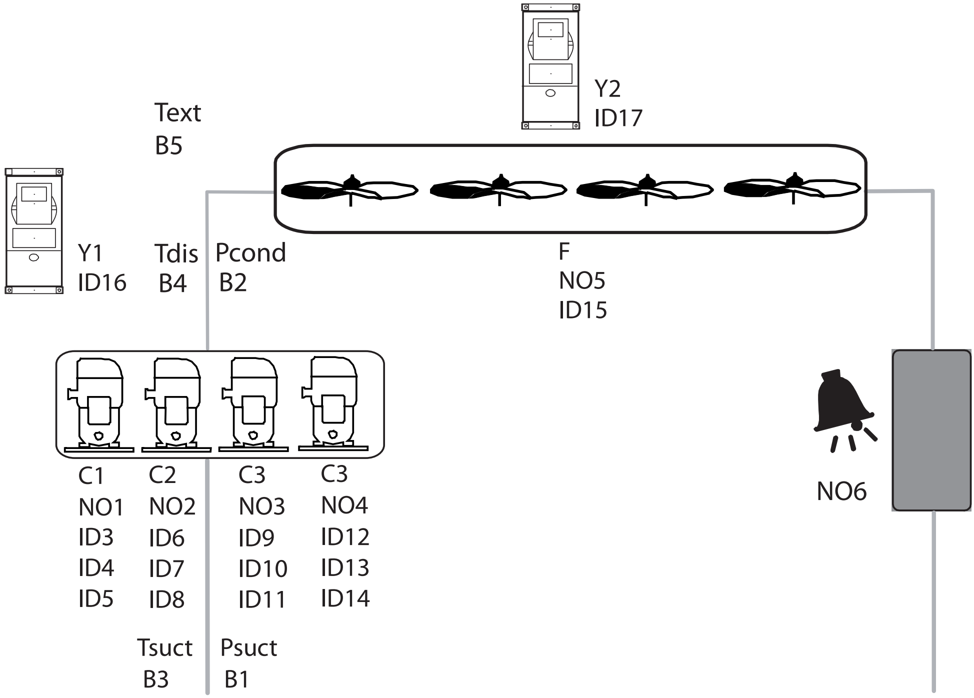


Fig. 2.f

Description
4 reciprocating/ scroll compressors, the first with inverter
1 fan stage with inverter
3 alarms for each compressor: thermal overload, oil differential, HP/LP
1 generic alarm for condenser
HP/LP pressostats
pRack L, PRK100L**

I/O List

Digital outputs	
NO1	Compressor 1
NO2	Compressor 2
NO3	Compressor 3
NO4	Compressor 4
NO5	Fan
NO6	Alarms output

Digital inputs	
ID1	Suction HP pressostat
ID2	Suction LP pressostat
ID3	Compressor 1, thermal overload alarm
ID4	Compressor 1, oil differential alarm
ID5	Compressor 1, HP/LP alarm
ID6	Compressor 2, thermal overload alarm
ID7	Compressor 2, oil differential alarm
ID8	Compressor 2, HP/LP alarm
ID9	Compressor 3, thermal overload alarm
ID10	Compressor 3, oil differential alarm
ID11	Compressor 3, HP/LP alarm
ID12	Compressor 4, thermal overload alarm
ID13	Compressor 4, oil differential alarm
ID14	Compressor 4, HP/LP alarm
ID15	Common fan overload
ID16	Compressor inverter alarm
ID17	Condenser inverter alarm

Analog outputs		
Y1	First compressor inverter	0...10 Vdc
Y2	Common condenser inverter	0...10 Vdc

Analog inputs			
B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction temperature probe	NTC	
B4	Discharge temperature probe	HTNTC	
B5	External temperature probe	NTC	

Tab. 2.l

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01	PRESSURE
Suction regulation type	Cab01	NEUTRAL ZONE
Suction setpoint	Cab03	3.5,barg
Suction differential	Cab08	0.3 barg
Compressors rotation type	Caf10	FIFO
Refrigerant	Caf04	R404A
High suction pressure alarm threshold	Cae24	6.0 barg
Low suction pressure alarm threshold	Cae26	0.0 barg
Condenser regulation by	Cab01	PRESSURE
Condenser regulation type	Dab01	PROPORTIONAL BAND
Condenser setpoint	Dab03	12.0 barg
Condenser differential	Dab07	2.0 barg
High condenser pressure alarm threshold	Dae01	24.0 barg
Low condenser pressure alarm threshold	Dae03	7.0 barg

Tab. 2.m

CAREL

2.7 Pre-configuration 7: SL3d

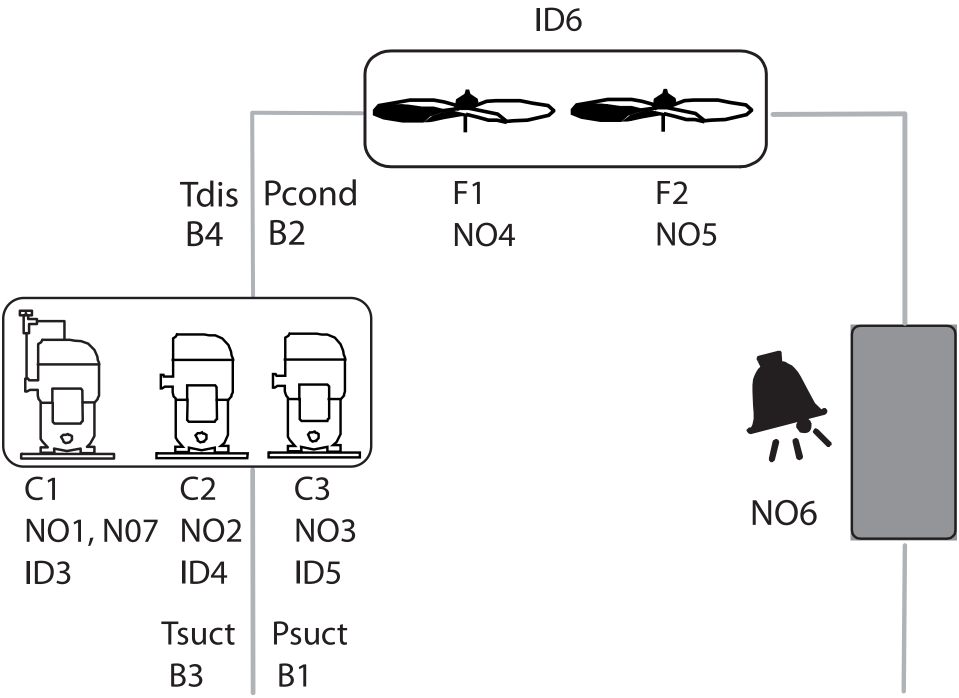


Fig. 2.g

Description
3 scroll compressors, the first Digital Scrollφ
2 fans
1 generic alarm for each compressor
1 generic alarm for condenser
HP/LP pressostats
pRack M, PRK100M**

Lista I/O

Digital outputs	
NO1	Compressor 1
NO2	Compressor 2
NO3	Compressor 3
NO4	Fan 1
NO5	Fan 2
NO6	Alarms output
NO7 - SSR	Compressor 1 – Digital Scroll™

Digital inputs	
ID1	Suction HP pressostat
ID2	Suction LP pressostat
ID3	Compressor 1, generic alarm
ID4	Compressor 2, generic alarm
ID5	Compressor 3, generic alarm
ID6	Common fan overload

Analog inputs			
B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction temperature probe	NTC	
B4	Discharge temperature probe	HTNTC	
B5	External temperature probe	NTC	

Tab. 2.n

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01	PRESSURE
Suction regulation type	Cab01	NEUTRAL ZONE
Suction setpoint	Cab03	3.5,barg
Suction differential	Cab08	0.3 barg
Compressors rotation type	Caf10	FIFO
Refrigerant	Caf04	R404A
High suction pressure alarm threshold	Cae24	6.0 barg
Low suction pressure alarm threshold	Cae26	0.0 barg
Condenser regulation by	Dab01	PRESSURE
Condenser regulation type	Dab01	PROPORTIONAL BAND
Condenser setpoint	Dab03	12.0 barg
Condenser differential	Dab07	2.0 barg
High condenser pressure alarm threshold	Dae01	24.0 barg
Low condenser pressure alarm threshold	Dae03	7.0 barg

Tab. 2.o

2.8 Pre-configuration 8: SL5d

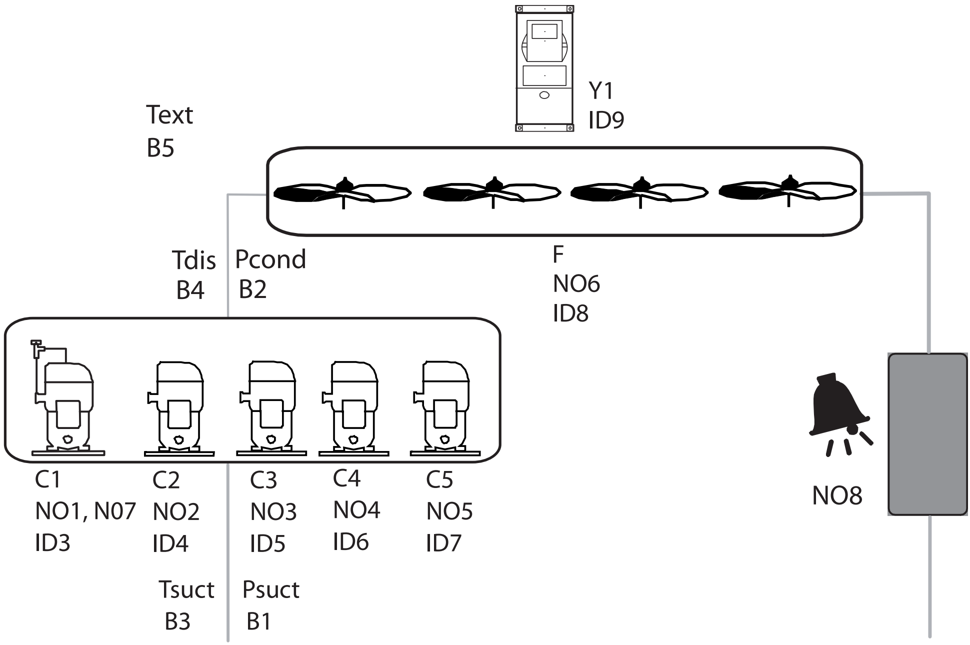


Fig. 2.h

Description
5 scroll compressors, the first Digital Scroll™
1 fan stage with inverter
1 generic alarm for each compressor
1 generic alarm for condenser
HP/LP pressostats
pRack L, PRK100L**

I/O List

Digital outputs	
NO1	Compressor 1
NO2	Compressor 2
NO3	Compressor 3
NO4	Compressor 4
NO5	Compressor 5
NO6	Fan
NO7 - SSR	Compressor 1 – Digital Scroll™
NO8	Alarms output

Digital inputs	
ID1	Suction HP pressostat
ID2	Suction LP pressostat
ID3	Compressor 1, generic alarm
ID4	Compressor 2, generic alarm
ID5	Compressor 3, generic alarm
ID6	Compressor 4, generic alarm
ID7	Compressor 5, generic alarm
ID8	Common fan overload
ID9	Condenser inverter alarm

Analog outputs			
Y1	Common condenser inverter	0...10 Vdc	

Analog inputs			
B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction temperature probe	NTC	
B4	Discharge temperature probe	HTNTC	
B5	External temperature probe	NTC	

Tab. 2.p

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01	PRESSURE
Suction regulation type	Cab01	NEUTRAL ZONE
Suction setpoint	Cab03	3.5,barg
Suction differential	Cab08	0.3 barg
Compressors rotation type	Caf10	FIFO
Refrigerant	Caf04	R404A
High suction pressure alarm threshold	Cae24	6.0 barg
Low suction pressure alarm threshold	Cae26	0.0 barg
Condenser regulation by	Dab01	PRESSURE
Condenser regulation type	Dab01	PROPORTIONAL BAND
Condenser setpoint	Dab03	12.0 barg
Condenser differential	Dab07	2.0 barg
High condenser pressure alarm threshold	Dae01	24.0 barg
Low condenser pressure alarm threshold	Dae03	7.0 barg

Tab. 2.q

2.9 Pre-configuration 9: SW1

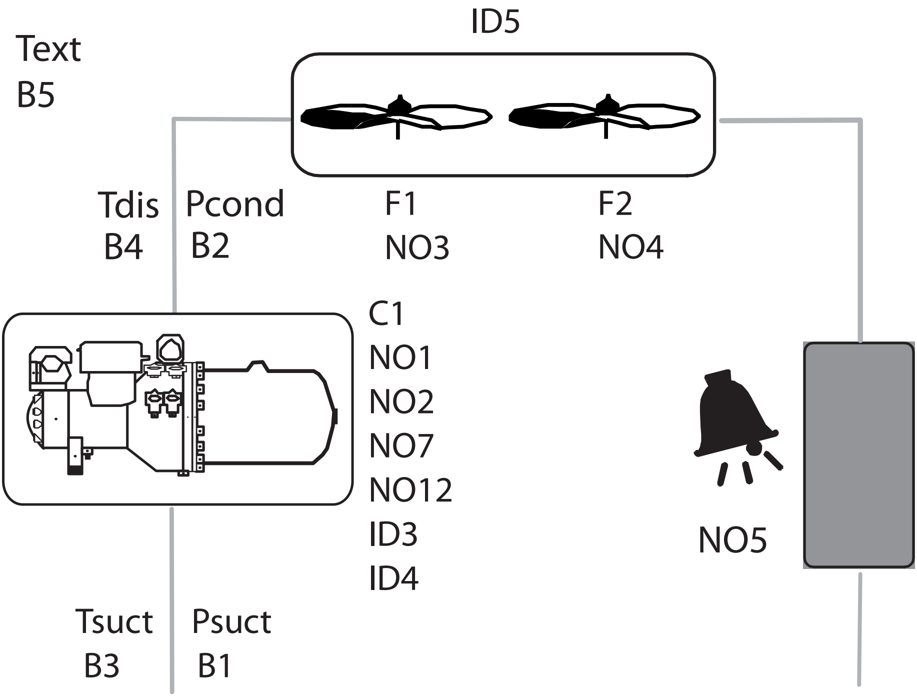


Fig. 2.i

Description
1 screw compressor with continuous modulation
- 2 pulsing capacity valves
- 2 relays for start up

2 fan stages
2 alarms for each compressor: generic, oil warning
1 generic alarm for condenser
HP/LP pressostats
pRack S, PRK100S**

I/O List

Digital outputs	
NO1	Line relay
NO2	Part winding
NO3	Fan 1
NO4	Fan 2
NO5	Alarms output
NO7 - SSR	CR1 pulsing capacity valve
NO12 - SSR	CR2 pulsing capacity valve

Digital inputs	
ID1	Suction HP pressostat
ID2	Suction LP pressostat
ID3	Compressor 1, generic alarm
ID4	Compressor 1, oil flow warning
ID5	Common fan overload

Analog inputs			
B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction temperature probe	NTC	
B4	Discharge temperature	HTNTC	
B5	External temperature	NTC	

Tab. 2.r

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01	PRESSURE
Suction regulation type	Cab01	NEUTRAL ZONE
Suction setpoint	Cab03	3.5,barg
Suction differential	Cab08	0.3 barg
Compressors rotation type	Caf10	FIFO
Refrigerant	Caf04	R404A
High suction pressure alarm threshold	Cae24	6.0 barg
Low suction pressure alarm threshold	Cae26	0.0 barg
Condenser regulation by	Dab01	PRESSURE
Condenser regulation type	Dab01	PROPORTIONAL BAND
Condenser setpoint	Dab03	12.0 barg
Condenser differential	Dab07	2.0 barg
High condenser pressure alarm threshold	Dae01	24.0 barg
Low condenser pressure alarm threshold	Dae03	7.0 barg

Tab. 2.s

CAREL

2.10 Pre-configuration 10: SW2

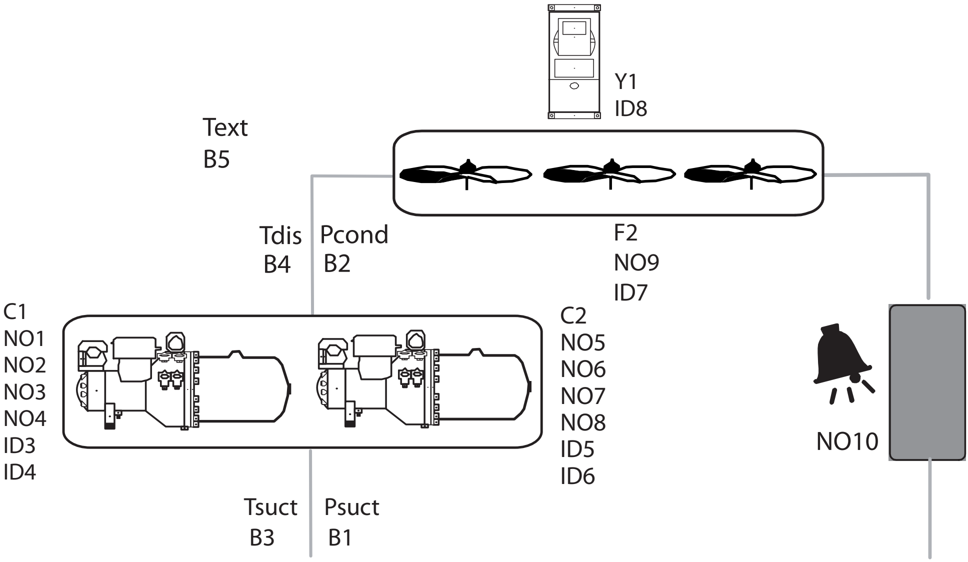


Fig. 2.j

Description

2 screw compressors

- 2 capacity valves each
- 2 relays for start up each

1 fan stage with inverter

2 alarms for each compressor: generic, oil warning

1 generic alarm for condenser

HP/LP pressostats

pRack M, PRK100M**

I/O List

Digital outputs	
NO1	Screw compressor 1, line relay
NO2	Screw compressor 1, part winding
NO3	Screw compressor 1, CR1 valve
NO4	Screw compressor 1, CR2 valve
NO5	Screw compressor 2, line relay
NO6	Screw compressor 2, part winding
NO7	Screw compressor 2, CR1 valve
NO8	Screw compressor 2, CR2 valve
NO9	Fan 1
NO10	Alarms output

Digital inputs	
ID1	Suction HP pressostat
ID2	Suction LP pressostat
ID3	Compressor 1, generic alarm
ID4	Compressor 1, oil flow warning
ID5	Compressor 2, generic alarm
ID6	Compressor 2, oil flow warning
ID7	Common fan overload
ID8	Condenser inverter alarm

Analog outputs		
Y1	Common condenser inverter	0...10 Vdc

Analog inputs			
B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction temperature probe	NTC	
B4	Discharge temperature probe	HTNTC	
B5	External temperature probe	NTC	

Tab. 2.t

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01	PRESSURE
Suction regulation type	Cab01	NEUTRAL ZONE
Suction setpoint	Cab03	3.5,barg
Suction differential	Cab08	0.3 barg
Compressors rotation type	Caf10	FIFO
Refrigerant	Caf04	R404A
High suction pressure alarm threshold	Cae24	6.0 barg
Low suction pressure alarm threshold	Cae26	0.0 barg
Condenser regulation by	Dab01	PRESSURE
Condenser regulation type	Dab01	PROPORTIONAL BAND
Condenser setpoint	Dab03	12.0 barg
Condenser differential	Dab07	2.0 barg
High condenser pressure alarm threshold	Dae01	24.0 barg
Low condenser pressure alarm threshold	Dae03	7.0 barg

Tab. 2.u

2.11 Pre-configuration 11: d-RS2

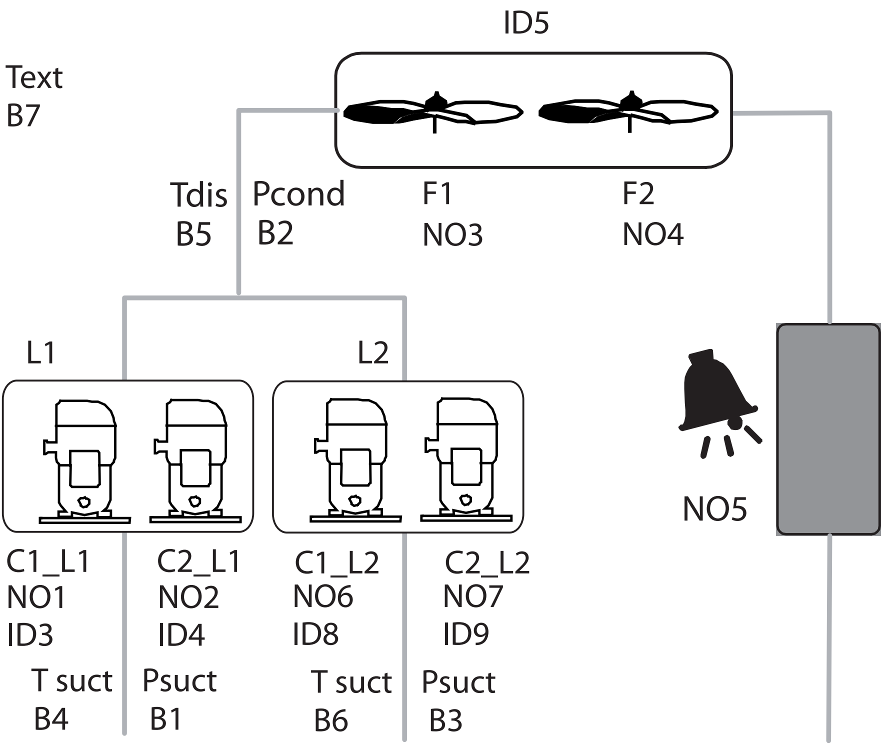


Fig. 2.k

Description
Double suction line
2 reciprocating/ scroll compressors for each line
2 fans
1 generic alarm for each compressor
1 generic alarm for condenser
HP/LP1/LP2 pressostats
pRack M, PRK100M*

CAREL

I/O List

Digital outputs	
NO1	L1-Compressor 1
NO2	L1-Compressor 2
NO3	Fan 1
NO4	Fan 2
NO5	Alarms output
NO6	L2-Compressor 1
NO7	L2-Compressor 2

Digital inputs	
ID1	HP1 suction pressostat
ID2	LP1 suction pressostat
ID3	L1-Compressor 1, generic alarm
ID4	L1-Compressor 2, generic alarm
ID5	Common fan overload
ID6	HP2 suction pressostat
ID7	LP2 suction pressostat
ID8	L2-Compressor 1, generic alarm
ID9	L2-Compressor 2, generic alarm

Analog inputs			
B1	Suction pressure probe L1	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction pressure probe L2	4...20 mA	-0.5...7.0 barg
B4	Suction temperature probe L1	NTC	
B5	Discharge temperature probe	HTNTC	
B6	Suction temperature probe L2	NTC	
B7	External temperature probe	NTC	

Tab. 2.v

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01/ Cbb01	PRESSURE
Suction regulation type	Cab01/ Cbb01	NEUTRAL ZONE
Suction setpoint	Cab03/ Cbb03	3.5,barg
Suction differential	Cab08/ Cbb08	0.3 barg
Compressors rotation type	Caf10/ Cbf10	FIFO
Refrigerant	Caf04/ Cbf04	R404A
High suction pressure alarm threshold	Cae24/ Cbe24	6.0 barg
Low suction pressure alarm threshold	Cae26/ Cbe26	0.0 barg
Condenser regulation by	Dab01	PRESSURE
Condenser regulation type	Dab01	PROPORTIONAL BAND
Condenser setpoint	Dab03	12.0 barg
Condenser differential	Dab07	2.0 barg
High condenser pressure alarm threshold	Dae01	24.0 barg
Low condenser pressure alarm threshold	Dae03	7.0 barg

Tab. 2.w

2.12 Pre-configuration 12: d-RS3

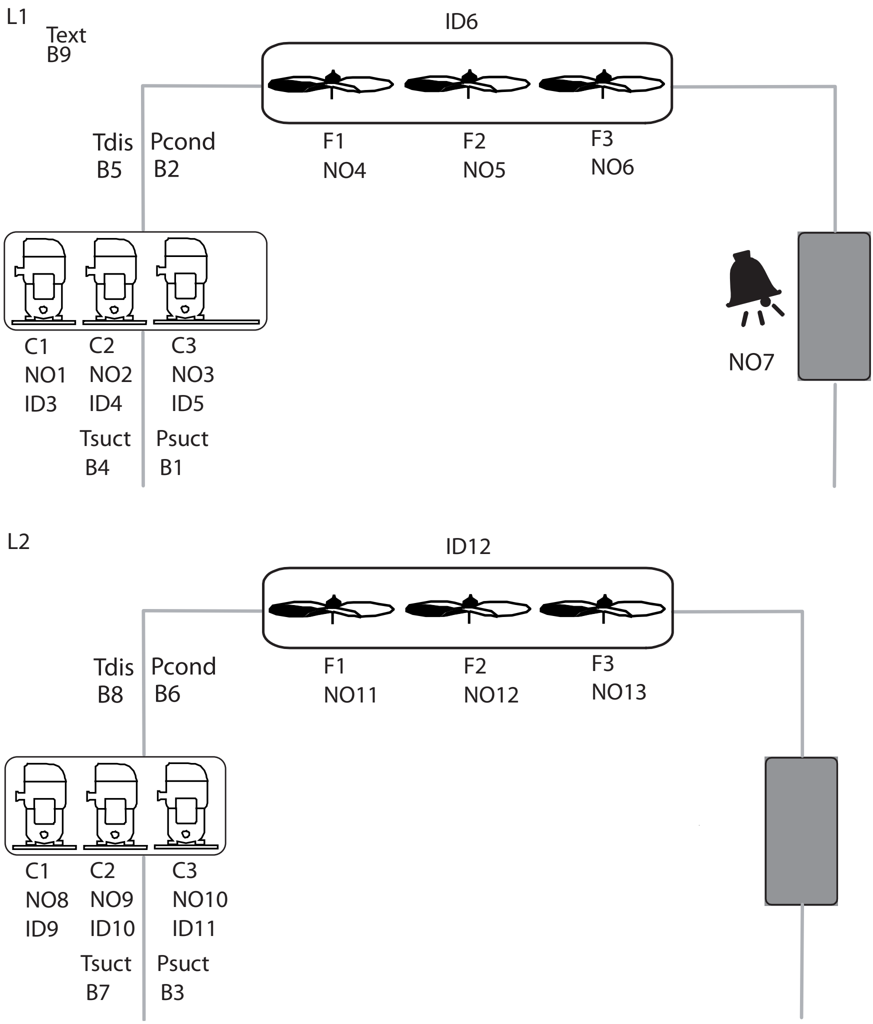


Fig. 2.l

Description
2 lines in the same board
3 reciprocating/ scroll compressors for each line
3 fans for each line
1 generic alarm for each compressor
1 generic alarm for each condenser
HP/LP pressostats
pRack L, PRK100L*

CAREL

I/O List

Digital outputs

NO1	L1-Compressor 1	NO8	L2-Compressor 1
NO2	L1-Compressor 2	NO9	L2-Compressor 2
NO3	L1-Compressor 3	NO10	L2-Compressor 3
NO4	L1-Fan 1	NO11	L2-Fan 1
NO5	L1-Fan 2	NO12	L2-Fan 2
NO6	L1-Fan 3	NO13	L2-Fan 3
NO7	Common alarms output		

Digital inputs

ID1	L1-Suction HP pressostat
ID2	L1-Suction LP pressostat
ID3	L1-Compressor 1, generic alarm
ID4	L1-Compressor 2, generic alarm
ID5	L1-Compressor 3, generic alarm
ID6	L1-Common fan overload
ID7	L2-Suction HP pressostat
ID8	L2-Suction LP pressostat
ID9	L2-Compressor 1, generic alarm
ID10	L2-Compressor 2, generic alarm
ID11	L2-Compressor 3, generic alarm
ID12	L2-Common fan overload

Analog inputs

B1	L1-Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	L1-Condensing pressure probe	4...20mA	0.0...30.0 barg
B3	L2-Suction pressure probe	4...20 mA	-0.5...7.0 barg
B4	L1-Suction temperature probe	NTC	
B5	L1-Discharge temperature probe	HTNTC	
B6	L2-Condensing pressure probe	4...20mA	0.0...30.0 barg
B7	L2-Suction temperature probe	NTC	
B8	L2-Discharge temperature probe	HTNTC	
B9	External temperature probe	NTC	

Tab. 2.x

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01/ Cbb01	PRESSURE
Suction regulation type	Cab01/ Cbb01	NEUTRAL ZONE
Suction setpoint	Cab03/ Cbb03	3.5,barg
Suction differential	Cab05/ Cbb05	0.3 barg
Compressors rotation type	Caf10/ Cbf10	FIFO
Refrigerant	Caf04/ Cbf04	R404A
High suction pressure alarm threshold	Cae24/ Cbe24	6.0 barg
Low suction pressure alarm threshold	Cae26/ Cbe26	0.0 barg
Condenser regulation by	Dab01/ Dbb01	PRESSURE
Condenser regulation type	Dab01 /Dbb01	PROPORTIONAL BAND
Condenser setpoint	Dab03/ Dbb03	12.0 barg
Condenser differential	Dab07/ Dbb07	2.0 barg
High condenser pressure alarm threshold	Dae01/ Dbe01	24.0 barg
Low condenser pressure alarm threshold	Dae03/ Dbe03	7.0 barg

Tab. 2.y

2.13 Pre-configuration 13: d-RS4

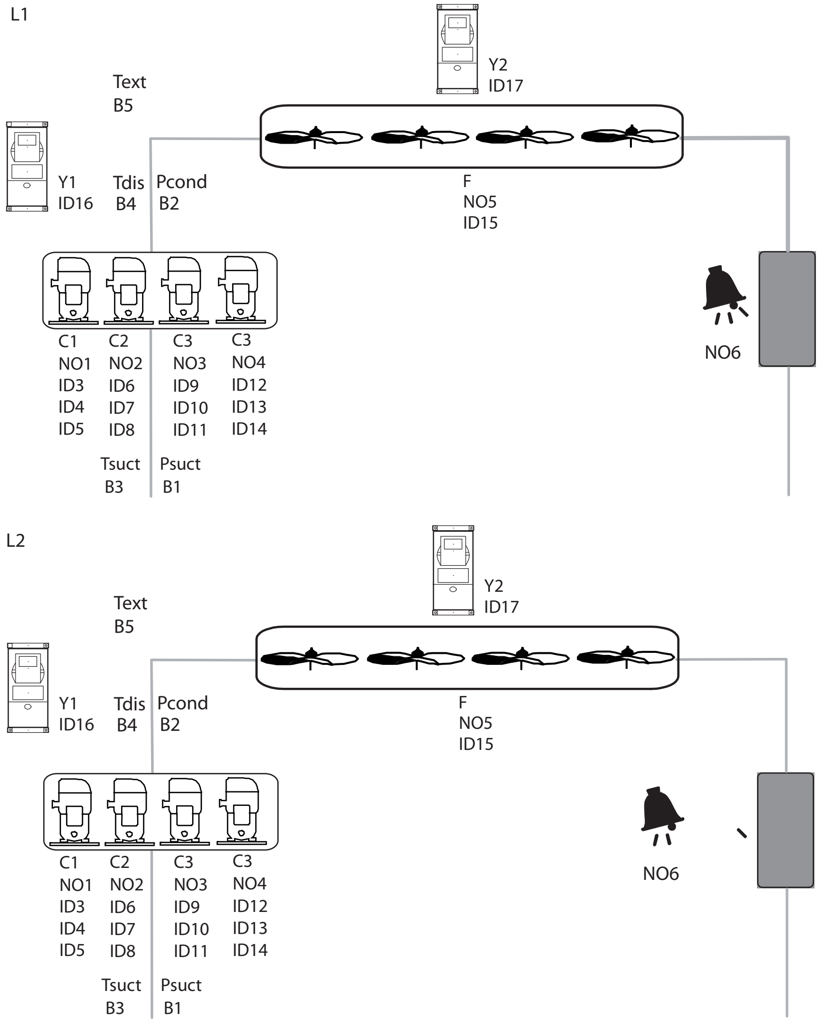


Fig. 2.m

Description

2 lines in separated boards
4 reciprocating/ scroll compressors for each line
First compressor with inverter
1 fan stage with inverter for each line
3 alarms for each compressor: thermal overload, oil, HP/LP
1 generic alarm for each condenser
HP/LP pressostats
2 pRack M, PRK100M**, one for each line

I/O list for each board

Digital outputs

NO1	Compressor 1	NO4	Compressor 4
NO2	Compressor 2	NO5	Fan
NO3	Compressor 3	NO6	Alarms output

Digital inputs

ID1	Suction HP pressostat		
ID2	Suction LP pressostat		
ID3	Compressor 1, thermal overload alarm		
ID4	Compressor 1, oil differential alarm		
ID5	Compressor 1, HP/LP alarm		
ID6	Compressor 2, thermal overload alarm		
ID7	Compressor 2, oil differential alarm		
ID8	Compressor 2, HP/LP alarm		
ID9	Compressor 3, thermal overload alarm		
ID10	Compressor 3, oil differential alarm		
ID11	Compressor 3, HP/LP alarm		
ID12	Compressor 4, thermal overload alarm	ID15	Common fan overload
ID13	Compressor 4, oil differential alarm	ID16	Compressor inverter alarm
ID14	Compressor 4, HP/LP alarm	ID17	Condenser inverter alarm

Analog outputs

Y1	First compressor inverter	0...10 Vdc
Y2	Common condenser inverter	0...10 Vdc

Analog inputs

B1	Suction pressure probe	4...20 mA	-0.5...7.0 barg
B2	Condensing pressure probe	4...20 mA	0.0...30.0 barg
B3	Suction temperature probe	NTC	
B4	Discharge temperature probe	HTNTC	
B5 – solo linea 1	External temperature probe	NTC	

Tab. 2.z

Main parameters

Parameter	Mask index	Value
Suction regulation by	Cab01/ Cbb01	PRESSURE
Suction regulation type	Cab01/ Cbb01	NEUTRAL ZONE
Suction setpoint	Cab03/ Cbb03	3.5,barg
Suction differential	Cab05/ Cbb05	0.3 barg
Compressors rotation type	Caf10/ Cbf10	FIFO
Refrigerant	Caf04/ Cbf04	R404A
High suction pressure alarm threshold	Cae24/ Cbe24	6.0 barg
Low suction pressure alarm threshold	Cae26/ Cbe26	0.0 barg
Condenser regulation by	Dab01 /Dbb01	PRESSURE
Condenser regulation type	Dab01 /Dbb01	PROPORTIONAL BAND
Condenser setpoint	Dab03/ Dbb03	12.0 barg
Condenser differential	Dab07/ Dbb07	2.0 barg
High condenser pressure alarm threshold	Dae01/ Dbe01	24.0 barg
Low condenser pressure alarm threshold	Dae03/ Dbe03	7.0 barg

Tab. 2.aa

3. PARAMETERS TABLE

"Mask index": indicates the unique address of each screen and consequently the path needed to reach the parameters available on this screen; for example, to reach the parameters corresponding to the suction pressure probe with mask index Bab01, proceed as follows:


Main menù I/O `B.In./Out.`→`a.Status`→`b.Analog.in.`

Below is the table of the parameters that can be displayed on the terminal. The values indicated with '---' are not Significant or are not set, while the values indicated with '…' may vary according to the configuration, with the possible options visible on the user terminal. A row of '…' means that there are a series of parameters Similar to the previous ones.

Note:Not all the screens and parameters shown in the table are always visible or can be set, the screens and parameters that are visible or can be set depend on the configuration and the access level.

Mask index	Display description	Description	Default	UOM	Values
`Main screen`					
Main screen for single suction line and single condenser line(display only)	---	Hours and minutes	…	…	…
	---	Date	…	…	…
	Suction	Suction pressure or temperature	---	…	… (**)
	Condensing	Condensing pressure or temperature	---	…	… (**)
	Superheat	Superheat	---	…	… (**)
	Suct.temp.	Suction temperature	---	…	… (**)
	Disch.temp.	Discharge temperature	---	…	… (**)
	---	Unit status (with unit OFF)	---	---	Unit OFF from alarm Unit OFF from blackout Unit OFF from supervisor Unit OFF by default Unit OFF by DIN Unit Off from keypad Unit OFF by manual op.
	---	Number of compressors on (with unit ON)	---	---	0…12
	---	Compressor activation percentage (with unit ON)	---	%	0…100
	---	Number of fans on (with unit ON)	---	---	0…16
	---	Fan activation percentage (with unit ON)	---	%	0…100

	---	Hours and minutes	…	…	…
	---	Date	…	…	…
	L1-Suction	Suction pressure or temperature (line 1)	---	…	… (**)
	L1-Condens.	Condensing pressure or temperature (line 1)	---	…	… (**)
	L1-Superheat	Superheat (line 1)	---	…	… (**)
	L1-Suct.temp.	Suction temperature (line 1)	---	…	… (**)
	L1-Disch.temp	Discharge temperature (line 1)	---	…	… (**)
	---	Unit status (with unit OFF)	---	---	See values on screen for single line
Main screen for double suction line and double condenser line, separate screens for each line(display only)	---	Number of compressors on (with unit ON, line 1)	---	---	0…12
	---	Compressor activation percentage (with unit ON, line 1)	---	%	0…100
	---	Number of fans on (with unit ON, line 1)	---	---	0…16
	---	Fan activation percentage (with unit ON, line 1)	---	%	0…100
	L2-Suction	Suction pressure or temperature (line 2)	---	…	… (**)
	L2-Condens.	Condensing pressure or temperature (line 2)	---	…	… (**)
	L2-Superheat	Superheat (line 2)	---	…	… (**)
	L2-Suct.temp.	Suction temperature (line 2)	---	…	… (**)
	L2-Disch.temp	Discharge temperature (line 2)	---	…	… (**)
	---	Unit status (with unit OFF)	---	---	See values on screen for single line
	---	Number of compressors on (with unit ON, line 2)	---	---	0…12
	---	Compressor activation percentage (with unit ON, line 2)	---	%	0…100
	---	Number of fans on (with unit ON, line 2)	---	---	0…16
	---	Fan activation percentage (with unit ON, line 2)	---	%	0…100
	---	Hours and minutes	…	…	…
	---	Date	…	…	…
	L1-Suction	Suction pressure or temperature (line 1)	---	…	… (**)
	L1-Condens.	Condensing pressure or temperature (line 1)	---	…	… (**)
	L2-Suction	Suction pressure or temperature (line 2)	---	…	… (**)
	L2-Condens.	Condensing pressure or temperature (line 2)	---	…	… (**)
Main screen for double suction line and double condenser line, same screen for both lines (display only)	L1-Suct.temp.	Suction temperature (line 1)	---	…	… (**)
	L1-Superheat Condensing	Superheat (line 1)	---	…	… (**)
	L2-Suct.temp.	Suction temperature (line 2)	---	…	… (**)
	L2-Superheat	Superheat (line 2)	---	…	… (**)
	L1-Disch.temp	Discharge temperature (line 1)	---	…	… (**)
	L2-Disch.temp	Discharge temperature (line 2)	---	…	… (**)
	---	Unit status (with unit OFF)	---	---	See values on screen for single line
	---	Compressor activation percentage (with unit ON, line 1)	---	%	0…100
	---	Compressor activation percentage (with unit ON, line 2)	---	%	0…100
	---	Fan activation percentage (with unit ON, line 1)	---	%	0…100
	---	Fan activation percentage (with unit ON, line 2)	---	%	0…100

Main screen for double suction line and single condenser line, (display only)	---	Hours and minutes	…	…	…
	Suction:	Date	…	…	…
	L1	Suction pressure or temperature (line 1)	---	…	… (**)
	L2	Suction pressure or temperature (line 2)	---	…	… (**)
	Condensing	Condensing pressure or temperature	---	…	… (**)
	L1-Suct.temp.	Suction temperature (line 1)	---	…	… (**)
	L1-Disch.temp	Discharge temperature (line 1)	---	…	… (**)
	L1-Superheat	Superheat (line 1)	---	…	… (**)
	L2-Suct.temp.	Suction temperature (line 2)	---	…	… (**)
	L2-Disch.temp	Discharge temperature (line 2)	---	…	… (**)
	L2-Superheat	Superheat (line 2)	---	…	… (**)
	---	Unit status (with unit OFF)	---	---	See values on screen for single line
	---	Compressor activation percentage (with unit ON, line 1)	---	%	0…100
	---	Compressor activation percentage (with unit ON, line 2)	---	%	0…100
	---	Fan activation percentage (with unit ON, line 1)	---	%	0…100

Mask index	Display description	Description	Default	UOM	Values
A.Unit Status					
Aa01 (display only)	Pressure	Suction pressure (line 1)	---	…	… (**)
	Sat.temp.	Saturated suction temperature (line 1)	---	…	… (**)
	Act.setpoint	Effective set point for pressure control (with compensation applied, line 1)	…(**)	…	…(**)
	Differential	Control differential for pressure control (line 1)	…(**)	…	…(**)
Aa02 (display only)	Pressure	Suction pressure (line 1)	---	…	…(**)
	Sat.temp.	Saturated suction temperature (line 1)	---	…	…(**)
	Act.setpoint	Effective set point for temperature control (with compensation applied, line 1)	…(**)	…	…(**)
	Differential	Control differential for temperature control (line 1)	…(**)	…	…(**)
Aa03 (display only)	Actual/req.	Capacity delivered/capacity required for suction line (line 1)	---	%	0/0 …100/100
	Reg.status	Control status (according to the type of control set, line 1)	---	---	Stop Increas / Decrease / Standby / Operating / Timings / Allarms
	Reg.type	Compressor control type (line 1)	Neutral zone	---	Proportional band / Neutral zone
	Setpoint	Effective suction pressure set point (with compensation applied, line 1)	…(**)	…	…(**)
Aa04 (display only)	C01, C02, …C12	Time remaining to next compressor start (line 1)	---	s	0…32000
	C01	Capacity delivered by compressor 1 on line 1 (a "!" to the right of the value means that some form of compressor capacity override is active, e.g. times, alarms, start-up procedure)	---	%	0…100
	…	…	…	…	…
	C12	Capacity delivered by compressor 12 (line 1)	---	%	0…100
Aa05 (display only)	Temperature	Suction temperature (line 1)	---	…	…(**)
	Superheat	Superheat (line 1)	---	…	…(**)

Mask index	Display description	Description	Default	UOM	Values
Aa11 (display only)	Disch.1	Discharge temperature, compressor 1 (line 1)	---	…	…(**)
	…	…	…	…	…
	Disch.6	Discharge temperature, compressor 6 (line 1)	---	…	…(**)
Aa13 (display only)	Liq.inj.1: DO	Number of digital output associated and status of liquid injection/ economizer (*) compressor 1 (line 1)	---	…	0…29 / ON / OFF
	…	…	…	…	…
	Liq.inj.6: DO	Number of digital output associated and status of liquid injection/ economizer (*) compressor 6 (line 1)	---	…	0…29 / ON / OFF
Aa15 (display only)	Discharge temperature	Digital Scroll™ compressor discharge temperature (line 1)	---	…	…(**)
	Cap.reduction	Digital Scroll™ compressor capacity reduction in progress (line 1)			NO / YES
	Oil sump temp.	Digital Scroll™ compressor oil sump temperature (line 1)	---	…	…(**)
	Oil status	Digital Scroll™ compressor oil dilution status (line 1)			Ok / Diluite
Aa16 (display only)	Status	Digital Scroll™ compressor operating status (line 1)	---	---	Off Start up On Alarm Off by time On by time Mod. manual In pump down
	Countdown	Digital Scroll™ compressor time count (line 1)	---	s	0…999
	Compr.	Digital Scroll™ compressor status (line 1)	---	---	OFF / ON
	Valve	Digital Scroll™ valve status(line 1)	---	---	OFF / ON
	Requested cap.	Digital Scroll™ compressor capacity required (line 1)	---	%	0…100
	Current capac.	Digital Scroll™ compressor effective capacity (line 1)	---	%	0…100
Aa20 (display only)	Pressure	Condensing pressure (line 1)	---	…	… (**)
	Sat.temp.	Saturated condensing temperature (line 1)	---	…	… (**)
	Act.setpoint	Effective set point for pressure control (with compens. applied, line 1)	… (**)	…	… (**)
	Differential	Control differential for pressure control (line 1)	… (**)	…	… (**)
Aa21 (display only)	Pressure	Condensing pressure (line 1)	---	…	… (**)
	Sat.temp.	Saturated condensing temperature (line 1)	---	…	… (**)
	Act.setpoint	Effective set point for temperature control (with compe. applied, line 1)	… (**)	…	… (**)
	Differential	Control differential for temperature control (line 1)	… (**)	…	… (**)
Aa22 (display only)	Actual/req.	Capacity delivered/capacity required for condenser line (line 1)	---	%	0/0 …100/100
	Status	Control status (according to the type of control set, line 1)	---	---	Stop Increase Decrease Stand-by Operating Timings Alarms
	Reg.type	Condenser control type (line 1)	Neutral zone	---	Proportional band Neutral zone
	Setpoint	Condenser control effective set point (with compens. applied, line 1)	… (**)	…	…(**)
Aa23 (display only)	F1	Power output of fan 1 on line 1 (a "!" to the right of the value means that some form of power override is active)	---	%	0…100
	…	…	…	…	…
	F8	Power output of fan 8 on line 1 (a "!" to the right of the value means that some form of power override is active)	---	%	0…100

Mask index	Display description	Description	Default	UOM	Values
Aa24 (display only)	F9	Power output of fan 9 on line 1 (a "!" to the right of the value means that some form of power override is active)	---	%	0…100
	…	…	…	…	…
	F16	Power output of fan 16 on line 1 (a "!" to the right of the value means that some form of power override is active)	---	%	0…100
Aa25 (display only)	Discharge temperature	Discharge temperature (line 1)	---	…	…(**)
	External temperature	Outside temperature (line 1)	---	…	…(**)
Aa31 (display only)	Pressure	Suction pressure (line 2)	---	…	… (**)
	Sat.temp.	Saturated suction temperature (line 2)	---	…	… (**)
	Act.setpoint	Effective set point for pressure control (with compensation applied, line 2)	…(**)	…	…(**)
	Differential	Control differential for pressure control (line 2)	…(**)	…	…(**)
Aa32 (display only)	Pressure	Suction pressure (line 2)	---	…	…(**)
	Sat.temp.	Saturated suction temperature (line 2)	---	…	…(**)
	Act.setpoint	Effective set point for temperature control (with compensation applied, line 2)	…(**)	…	…(**)
	Differential	Control differential for temperature control (line 2)	…(**)	…	…(**)
Aa33 (display only)	Actual/req.	Capacity delivered/capacity required for suction line (line 2)	---	%	0/0 …100/100
	Status	Control status (according to the type of control set, line 2)	---	---	Stop Increas Decrease Standby — Operating Timings Alarms
	Reg.type	Compressor control type (line 2)	Neutral zone	---	Proportional band Neutral zone
	Setpoint	Effective suction pressure set point (with compensation applied, line 2)	…(**)	…	…(**)
Aa34 (display only)	C01, C02, …C12	Time remaining to next compressor start (line 2)	---	s	0…32000
	C01	Capacity delivered by compressor 1 on line 2 (a "!" to the right of the value means that some form of compressor capacity override is active, e.g. times, alarms, start-up procedure)	---	%	0…100
	…	…	…	…	…
	C12	Capacity delivered by compressor 12 (line 2)	---	%	0…100
Aa05 (display only)	Temperature	Suction temperature (line 2)	---	…	…(**)
	Superheat	Superheat (line 2)	---	…	…(**)
Aa41 (display only)	Disch.1	Discharge temperature, compressor 1 (line 2)	---	…	…(**)
	…	…	…	…	…
	Disch.6	Discharge temperature, compressor 6 (line 2)	---	…	…(**)
Aa43 (display only)	Liq.inj.1: DO	N.ro of digital output associated and status liquid injection com.1 (line 2)	---	…	0…29 — ON / OFF
	…	…	…	…	…
	Liq.inj.6: DO	Number of digital output associated and status liquid injection compr. 6 (line 2)	---	…	0…29 — ON / OFF
Aa45 (display only)	Discharge temperature	Digital Scroll™ compressor discharge temperature (line 2)	---	…	…(**)
	Cap.reduction	Digital Scroll™ compressor capacity reduction in progress (line 2)			NO / SI
	Oil sump temp.	Digital Scroll™ compressor oil sump temperature (line 2)	---	…	…(**)
	Oil status	Digital Scroll™ compressor oil dilution status (line 2)			Ok / Dilute

Mask index	Display description	Description	Default	UOM	Values
Aa46 (display only)	Status	Digital Scroll^{TM} compressor operating status (line 2)	---	---	Off / Start up / On / Alarm / Off da tempo / On da tempo / Mod.manuale / In pump down
	Countdown	Digital Scroll^{TM} compressor time count (line 2)	---	s	0…999
	Compr.	Digital Scroll^{TM} compressor status (line 2)	---	---	OFF / ON
	Valve	Digital Scroll^{TM} valve status(line 2)	---	---	OFF / ON
	Requested cap.	Digital Scroll^{TM} compressor capacity required (line 2)	---	%	0…100
	Current capac.	Digital Scroll^{TM} compressor effective capacity (line 2)	---	%	0…100
Aa50 (display only)	Pressure	Condensing pressure (line 2)	---	…	… (**)
	Sat.temp.	Saturated condensing temperature (line 2)	---	…	… (**)
	Act.setpoint	Effective set point for pressure control (with compensation applied, line 2)	…(**)	…	…(**)
	Differential	Control differential for pressure control (line 2)	…(**)	…	…(**)
Aa51 (display only)	Pressure	Condensing pressure (line 2)	---	…	…(**)
	Sat.temp.	Saturated condensing temperature (line 2)	---	…	…(**)
	Act.setpoint	Effective set point for temperature control (with compensation applied, line 2)	…(**)	…	…(**)
	Differential	Control differential for temperature control (line 2)	…(**)	…	…(**)
Aa52 (display only)	Actual/req.	Capacity delivered/capacity required for condenser line (line 2)	---	%	0/0 …100/100
	Reg.status	Control status (according to the type of control set, line 2)	---	---	Stop Increas / Decrease / Standby / Operating / Timings / Alarms
	Reg.type	Condenser control type (line 2)	Neutral zone	---	Proportional band / Neutral zone
	Setpoint	Condenser control effective set point (with compensat. applied, line 2)	…(**)	…	…(**)
Aa53 (display only)	F1	Power output of fan 1 on line 2 (a "!" to the right of the value means that some form of power override is active)	---	%	0…100
	…	…	…	…	…
	F8	Power output of fan 8 on line 2 (a "!" to the right of the value means that some form of power override is active)	---	%	0…100
Aa54 (display only)	F9	Power output of fan 9 on line 2 (a "!" to the right of the value means that some form of power override is active)	---	%	0…100
	…	…	…	…	…
	F16	Power output of fan 16 on line 2 (a "!" to the right of the value means that some form of power override is active)	---	%	0…100
Aa55 (display only)	Discharge temperature	Discharge temperature (line 2)	---	…	…(**)
	External temperature	Outside temperature (line 2)	---	…	…(**)

Mask index	Display description	Description	Default	UOM	Values
Aa60 (display only)	Status,curr.	Effective status of screw compressor 1 with stepped modulation	---	---	Off Start up Stage1 Stage 2 Stage 3 Stage 4
	Status, req.	Status required for the screw compressor 1 with stepped modulation	---	---	Off Start up Stage1 Stage 2 Stage 3 Stage 4
	Minimum on time	Countdown for minimum on time screw comp. 1 with stepped modulation	---	s	0…999
	Min.off/starts	Countdown for minimum off time or wait between successive starts screw comp. 1 with stepped modulation	---	s	0…999
	Next step	Countdown for next step activation screw comp. 1 with stepped modulation	---	s	0…999
Aa61 (display only)	Status	Effective status of screw compressor 1 with continuous capacity modulation	---	---	Off Start up Norm. operating Shut down
	Shut down countd.	Screw comp. 1 off time with continuous capacity modulation	---	s	0…999
	Max.pow.countdown	Countdown for minimum off time or wait between successive starts screw comp. 1 with continuous capacity modulation	---	s	0…999
	Min.on countdown	Countdown to start screw comp. 1 with continuous capacity modulation	---	s	0…999
Aa62 (display only)	Status,curr.	Effective status of screw compressor 2	---	---	Off Start up Stage1 Stage 2 Stage 3 Stage 4
	Status, req.	Status required for the screw compressor 2	---	---	Off Start up Stage1 Stage 2 Stage 3 Stage 4
	Minimum on time	Countdown for minimum on time screw comp. 2	---	s	0…999
	Min.off/starts	Countdown for minimum off time or wait between successive starts screw comp. 2	---	s	0…999
	Next step	Countdown for next step activation screw comp. 2	---	s	0…999
Aa70 (display only)	Zone	Envelope zone for screw compressor 1	---	---	0…14
	Max admit.time	Maximum duration allowed in the zone		min	0…999
	Countdown	Countdown		s	0…32000
	Max admit.power	Maximum capacity allowed in the zone		%	0…100
Aa71 (display only)	Startup status	Start-up status for screw compressor 1	---	---	Off Compressor on Intermediate interval Final interval Compressor off RestartAlarm
	N° startup restart	Number of restarts	---	---	0…99

Mask index	Display description	Description	Default	UOM	Values
Aa72 (display only)	Err.code	Type of error in envelope definition	---	---	No error Env. def. inconsist.
	Al.code	Type of alarm activated	---	---	No Alarm Max time elapsed Zone not allowed Max. no. of restarts
	Envel.def.error code	Type of error in selection of predefined envelope	---	---	No error Comp. not supported Gas type not allowed
Aaan (display only)	Reg.var.	Control variable value for generic stage function 1	---	…	…(**)
	Enable	Enabling variable status for generic stage function 1	---	---	Not active / active
	Setpoint	Control set point for generic stage function 1	---	…	…(**)
	Differential	Control differential for generic stage function 1	---	…	…(**)
	Mode	Control mode for generic stage function 1 (direct or reverse)	---	---	D, R
	Status	Status of generic stage function 1	---	---	Not active / active
…	…	…	…	…	…
Aaar (display only)	Reg.var.	Control variable value for the generic stage function 5	---	…	…(**)
	Enable	Enabling variable status for the generic stage function 5	---	---	Not active / active
	Setpoint	Control set point for the generic stage function 5	---	…	…(**)
	Differential	Control differential for the generic stage function 5	---	…	…(**)
	Mode	Control mode for the generic stage function 5 (direct or reverse)	---	---	D, R
	Status	Status of generic stage function 5	---	---	Not active / active
Aaas (display only)	Reg.variable	Control variable value for generic modulating function 1	---	…	…(**)
	Enable	Enabling variable status for generic modulating function 1	---	---	Not active / active
	Setpoint	Control set point for generic modulating function 1	---	…	…(**)
	Differential	Control differential for generic modulating function 1	---	…	…(**)
	Mode	Control mode for generic modulating function 1 (direct or reverse)	---	---	D, R
	Status	Status of generic modulating function 1	---	%	0.0…100.0
Aaat (display only)	Reg.variable	Control variable value for generic modulating function 2	---	…	…(**)
	Enable	Enabling variable status for generic modulating function 2	---	---	Not active / active
	Setpoint	Control set point for generic modulating function 2	---	…	…(**)
	Differential	Control differential for generic modulating function 2	---	…	…(**)
	Mode	Control mode for generic modulating function 2 (direct or reverse)	---	---	D, R
	Status	Status of generic modulating function 2	---	%	0.0…100.0
Aaau (display only)	Reg.variable	Control variable status for generic alarm function 1	---	---	Not active / active
	Enable	Enabling variable status for generic alarm function 1	---	---	Not active / active
	Type	Type of alarm for generic alarm function 1	---	---	Light / Serious
	Delay time	Control differential for generic alarm function 1	---	s	0…9999
	Status	Status of generic alarm function 1	---	---	Not active / active
Aaav (display only)	Reg.variable	Control variable status for generic alarm function 2	---	---	Not active / active
	Enable	Enabling variable status for generic alarm function 2	---	---	Not active / active
	Type	Type of alarm for generic alarm function 2	---	---	Light / Serious
	Delay time	Control differential for generic alarm function 2	---	s	0…9999
	Status	Status of generic alarm function 2	---	---	Not active / active

Mask index	Display description	Description	Default	UOM	Values
Aaaw (display only)	Weekday	Day of the week	---	---	Monday, …, Sunday
	TB1: --:-- -> --:--	Enabling and definition of time band 1: start hour and minutes, end hour and minutes for the generic scheduling function	---	…	…
	…	…	…	…	…
	TB4: --:-- -> --:--	Enabling and definition of time band 4: start hour and minutes, end hour and minutes for the generic scheduling function	---	…	…
	Status	Status of generic scheduling function	---	---	Not active / active
Aaax (display only)	Status	Status of heat recovery function (line 1)	---	---	OFF / ON
	Heat recl. temp.	Heat recovery temperature (line 1)	---	…	…(**)
	An.OUT modulat.	Status of modulating heat recovery valve output (line 1)	---	---	0.0…100.0
	HR Prevent	Status of prevention via heat recovery (line 1)	---	---	OFF / ON
Aaay (display only)	Status	Status of heat recovery function (line 2)	---	---	OFF / ON
	Heat recl. temp.	Heat recovery temperature (line 2)	---	…	…(**)
	An.OUT modulat.	Status of modulating heat recovery valve output (line 2)	---	---	0.0…100.0
	HR Prevent	Status of prevention via heat recovery (line 2)	---	---	OFF / ON
Aaaz (display only)	Status	Status of ChillBooster device (line 1)	---	---	OFF / ON
	Ext.temp.	Outside temperature (line 1)	---	…	…(**)
	Ext.temp.thr.	ChillBooster activation threshold (line 1)	---	…	…(**)
	Time fan 100%	Number of minutes elapsed with fans at 100/number of minutes allowed (line 1)	---	min	0…999/0…999
Aaa1 (display only)	Status	Status of ChillBooster device (line 2)	---	---	OFF / ON
	Ext.temp.	Outside temperature (line 2)	---	…	…(**)
	Ext.temp.thr.	ChillBooster activation threshold (line 2)	---	…	…(**)
	Time fan 100%	Number of minutes elapsed with fans at 100/number of minutes allowed (line 1)	---	min	0…999/0…999
Aaa2 (display only)	Cond.temp.	Saturated condensing temperature (line 1)	---	…	…(**)
	Liquid Temp.	Liquid temperature (line 1)	---	…	…(**)
	Subcooling	Subcooling (line 1)	---	…	…(**)
	Status	Status of subcooling function (line 1)	---	---	Open / Closed
Aaa3 (display only)	Cond.temp.	Saturated condensing temperature (line 2)	---	…	…(**)
	Liquid Temp.	Liquid temperature (line 2)	---	…	…(**)
	Subcooling	Subcooling (line 2)	---	…	…(**)
	Status	Status of subcooling function (line 2)	---	---	Open / Closed
Ab01 (display only)	User setp.	User-defined set point for suction pressure control, proportional control (line 1)	---	…	…(**)
	Actual.setpoint	Effective set point for suction pressure control, proportional control (with compensation applied, line 1)	---	…	…(**)
	Diff.	Suction pressure control differential, proportional control (line 1)	---	…	…(**)

Mask index	Display description	Description	Default	UOM	Values
Ab02 (display only)	User setp.	User-defined set point for suction pressure control, proportional control (line 1)	---	…	…(**)
	Actual.setpoint	Effective set point for suction pressure control, proportional control (with compensation applied, line 1)	---	…	…(**)
	Neutral zone	Neutral zone for suction pressure control (line 1)	---	…	…(**)
	Incr.diff.	Increase differential for suction pressure control, neutral zone control (line 1)	---	…	…(**)
	Decr.diff.	Decrease differential for suction pressure control, neutral zone control (line 1)	---	…	…(**)
Ab03 (display only)	User setp.	User-defined set point for suction pressure control, proportional control (line 2)	---	…	…(**)
	Actual.setp.	Effective set point for suction pressure control, proportional control (with compensation applied, line 2)	---	…	…(**)
	Diff.	Suction pressure control differential, proportional control (line 2)	---	…	…(**)
Ab04 (display only)	User setp.	User-defined set point for suction pressure control, proportional control (line 2)	---	…	…(**)
	Actual.setp.	Effective set point for suction pressure control, proportional control (with compensation applied, line 2)	---	…	…(**)
	Neutral zone	Neutral zone for suction pressure control (line 2)	---	…	…(**)
	Incr.diff.	Increase differential for suction pressure control, neutral zone control (line 2)	---	…	…(**)
	Decr.diff.	Decrease differential for suction pressure control, neutral zone control (line 2)	---	…	…(**)
Ab05 (display only)	User setp.	User-defined set point for condensing pressure control, proportional control (line 1)	---	…	…(**)
	Actual.setp.	Effective set point for condensing pressure control, proportional control (with compensation applied, line 1)	---	…	…(**)
	Diff.	Condensing pressure control differential, proport.control (line 1)	---	…	…(**)
Ab06 (display only)	User setp.	User-defined set point for condensing pressure control, proportional control (line 1)	---	…	…(**)
	Actual.setp.	Effective set point for condensing pressure control, proportional control (with compensation applied, line 1)	---	…	…(**)
	Neutral zone	Neutral zone for condensing pressure control (line 1)	---	…	…(**)
	Incr.diff.	Increase differential for the condensing pressure control, neutral zone control (line 1)	---	…	…(**)
	Decr.diff.	Decrease differential for the condensing pressure control, neutral zone control (line 1)	---	…	…(**)
Ab07 (display only)	User setp.	User-defined set point for condensing pressure control, proportional control (line 2)	---	…	…(**)
	Actual.setp.	Effective set point for condensing pressure control, proportional control (with compensation applied, line 2)	---	…	…(**)
	Diff.	Condensing pressure control differential, proportional control (line 2)	---	…	…(**)

Mask index	Display description	Description	Default	UOM	Values
Ab08 (display only)	User setp.	User-defined set point for condensing pressure control, proportional control (line 2)	---	…	…(**)
	Actual setp.	Effective set point for condensing pressure control, proportional control (with compensation applied, line 2)	---	…	…(**)
	Neutral zone	Neutral zone for condensing pressure control (line 2)	---	…	…(**)
	Incr.diff.	Increase differential for the condensing pressure control, neutral zone control (line 2)	---	…	…(**)
	Decr.diff.	Decrease differential for the condensing pressure control, neutral zone control (line 2)	---	…	…(**)
Ab12	Setpoint	Setpoint without compensation (suction line 1)	3.5 barg	…	…(**)
Ab13	Setpoint	Setpoint without compensation (condenser line 1)	12.0 barg	…	…(**)
Ab14	Setpoint	Setpoint without compensation (suction line 2)	3.5 barg	…	…(**)
Ab15	Setpoint	Setpoint without compensation (condenser line 2)	12.0 barg	…	…(**)
Ac01	Status	Unit status (display only)	Off from keypad	---	Waiting.. Unit On/ Off from alarm Off from blackout Off from BMS Off by default Off by default Off by DIN Off from keypad Manual op. Prevent HP
	---	On-Off from keypad (line 1)	OFF	---	OFF / ON
Ac02	L1: L2:	Unit status (display only)	Off from keypad	---	…(See above Ac01)
	---	On-Off from keypad (line 1)	OFF	---	OFF / ON
	---	On-Off from keypad (line 2)	OFF	---	OFF / ON
Ac03	Enable of unit OnOff By digit input	Enable unit On/Off from digit input (line 1)	NO	---	NO / YES
	By supervisor	Enable unit On/Off from supervisor (line 1)	NO	---	NO / YES
	By black out	Enable unit On/Off from black out (line 1)	NO	---	NO / YES
Ac04	Unit on delay after blackout	System on delay after black out (line 1)	0	s	0…999
Ac06	Enable of unit OnOff By digit input	Enable unit On/Off from digit input (line 2)	NO	---	NO / YES
	By supervisor	Enable unit On/Off from supervisor (line 2)	NO	---	NO / YES
	By black out	Enable unit On/Off from black out (line 2)	NO	---	NO / YES
Ac07	Unit on delay after blackout	System on delay after black out (line 2)	0	s	0…999

Mask index	Display Description	Description	Default	UOM	Values
I/O B. Ingr./Usc. (the I/Os available depend on the selected configuration, the following are just some examples. For the complete list of I/O positions available see Appendix A.5)					
Baa02	DI	Alarm 1 for compressor 1 DI position (line 1)	03	---	---, 01…18, B1…B10 (****)
	Status (display only)	Status of alarm 1 for compressor 1 DI (line 1)	---	---	Chiuso / Aperto
	Logic	Logic of alarm 1 for compressor 1 DI (line 1)	NC	---	NC / NO
	Function (display only)	Alarm 1 for compressor 1 function status (line 1)	---	---	Not active / active
…	…	…	…	…	…
Bab01	---	Suction pressure probe position (line1)	B1	---	---, B1…B10 (****)
Bab01	---	Suct pressure probe type (line 1)	4...20mA	---	---- 0-1V - 0-10V- 4...20mA- 0-5V
	--- (display only)	Suction pressure value (line 1)	---	…	…(**)
	Upper value	Suct pressure maximum value (line 1)	7.0 barg	…	…(**)
	Lower value	Suct pressure minimum value (line 1)	-0,5 barg	…	…(**)
	Calibration	Suction pressure probe adjustment (line 1)	0.0 barg	…	…(**)
…	…	…	…	…	…
Bac02	Line relay DO	Compressor 1 line DO position and status (On/Off) display (line 1)	…	---	---, 01…29 (****)
	Part winding DO/Star relay DO (*)	Compressor 1 part winding or star DO position and status (On/Off) display (line 1)	…	---	---, 01…29 (****)
	---/ Delta relay DO (*)	Compressor 1 delta DO position and status (On/Off) display (line 1)	…	---	---, 01…29 (****)
Bac03	DO	Compressor 1 unloader 1 DO position (line 1)	…	---	---, 01…29 (****)
	Status (display only)	Status for compressor 1 unloader 1 DO (line 1)	---	---	Closed / Open
	Logic	Logic for compressor 1 unloader 1 DO (line 1)	NO	---	NC / NO
	Function (display only)	Compressor 1 unloader 1 function status (line 1)	---	---	Not active / active
…	…	…	…	…	…
Bad01	AO	Compressor modulating device AO position (line 1)	0	---	---, 01…06 (****)
	Status (display only)	Modulating device output value (line 1)	0	%	0.0…100.0
…	…	…	…	…	…
Bb01	Suction L1	Suction line 1 in manual mode	DIS	---	DIS / AB
	Suction L2	Suction line 2 in manual mode	DIS	---	DIS / AB
	Discharge L1	Condenser line 1 in manual mode	DIS	---	DIS / AB
	Discharge L2	Condenser line 2 in manual mode	DIS	---	DIS / AB
	Timeout	Manual mode duration after last key pressed	10	min	0…500
Bba02	Compressor 1 Force to	Manual stages request for compressor 1 (line 1)	OFF	---	OFF / ON, 2 STAGES(*), 3 STAGES (*), 4 STAGES (*)
…	…	…	…	…	…
Bba16	Compressor 12 Force to	Manual stage request for compressor 12 (line 1)	OFF	---	OFF / ON, 2 STAGES(*), 3 STAGES (*), 4 STAGES (*)
Bba17	Oil cool pump1 Force to	Manual operating status for oil cooling pump 1 (line 1)	OFF	---	OFF / ON
	Oil cool pump2 Force to	Manual operating status for oil cooling pump 2 (line 1)	OFF	---	OFF / ON
Bba18	Oil cool fan Force to	Manual operating status for oil cooling fan (line 1)	OFF	---	OFF / ON
Bba20	Compressor 1 Force to	Manual stage request for compressor 1 (line 2)	OFF	---	OFF / ON, 2 STAGES (*), 3 STAGES (*), 4 STAGES (*)
…		…	…	…	…

Mask index	Display Description	Description	Default	UOM	Values
Bba34	Compressor 12 Force to	Manual stage request for compressor 12 (line 2)	OFF	---	OFF / ON	3 STAGES (*) 2 STAGES (*)	4 STAGES (*)
Bba35	Oil cool pump1 Force to	Manual operating status for oil cooling pump 1 (line 2)	OFF	---	OFF / ON
	Oil cool pump2 Force to	Manual operating status for oil cooling pump 2 (line 2)	OFF	---	OFF / ON
Bba37	Oil cool fan Force to	Manual operating status for oil cooling fan (line 2)	OFF	---	OFF / ON
Bba38	Fan1 force	Manual operating status for fan 1 (line 1)	OFF	---	OFF / ON
…	…	…	…	…	…
Bba53	Fan16 force	Manual operating status for fan 16 (line 1)	OFF	---	OFF / ON
Bba54	Heat reclaim pump force	Manual operating status for heat recovery pump (line 1)	OFF	---	OFF / ON
Bba55	ChillBooster force	Manual operating status for ChillBooster (line 1)	OFF	---	OFF / ON
Bba57	Fan1 force	Manual operating status for fan 1 (line 2)	OFF	---	OFF / ON
…	…	…	…	…	…
Bba72	Fan16 force	Manual operating status for fan 16 (line 2)	OFF	---	OFF / ON
Bba73	Heat reclaim pump force	Manual operating status for heat recovery pump (line 2)	OFF	---	OFF / ON
Bba74	ChillBooster force	Manual operating status for ChillBooster (line 2)	OFF	---	OFF / ON
Bbb05	Compressor 1 Force to	Manual continuous capacity request for compressor 1 (line 1)	0.0	%	0.0…100.0
Bbb06	Oil cool pump Force to	Manual request for oil cooling pump (line 1)	0.0	%	0.0…100.0
Bbb07	Compressor 1 Force to	Manual continuous capacity request for compressor 1 (line 2)	0.0	%	0.0…100.0
Bbb08	Oil cool pump Force to	Manual request for oil cooling pump (line 2)	0.0	%	0.0…100.0
Bbb09	Fan1 Force to	Manual continuous capacity request for fan 1 (line 1)	0.0	%	0.0…100.0
Bbb10	Heat reclaim pump force	Manual request for heat recovery pump (line 1)	0.0	%	0.0…100.0
Bbb11	Fan1 Force to	Manual continuous capacity request for fan 1 (line 2)	0.0	%	0.0…100.0
Bbb12	Heat reclaim pump force	Manual request for heat recovery pump (line 2)	0.0	%	0.0…100.0
Bc01	Test Dout	Enable DO test mode	NO	---	NO / YES
	Timeout	Test mode duration after last button pressed	10	min	0…500

Mask index	Display Description	Description	Default	UOM	Values
Bc02	Test Aout	Enable AO test mode	NO	---	NO / SI
	Timeout	Test mode duration after last button pressed	10	min	0…500
Bca10	DO1	DO 1 logic for test	NO	---	NO / NC
		DO 1 value for test	OFF	---	OFF/ ON
…	…	…	…	…	…
Bca26	DO29	DO 29 logic for test	NO	---	NO / NC
		DO 29 value for test	OFF	---	OFF / ON
Bcb10	AO1	AO 1 value for test	0.0	---	0.0…100.0
…		…	…	…	…
Bcb12	AO6	AO 6 value for test	0.0	---	0.0…100.0

Mask index	Display Description	Description	Default	UOM	Values
c.compressors (*) (The I/Os available depend on the selected configuration, the following are just some examples. For the complete list of I/O positions available see Appendix A.5)					
Caa01	DI	Alarm 1 for compressor 1 DI position (line 1)	03	---	---, 01…18, B1…B10 (****)
	Status (display only)	Status of alarm 1 for compressor 1 DI (line 1)	---	---	Closed / Open
	Logic	Logic of alarm 1 for compressor 1 DI (line 1)	NC	---	NC / NO
	Function (display only)	Alarm 1 for compressor 1 function status (line 1)	---	---	Not active / active
…	…	…	…	…	…
Caa08	Line relay DO	Compressor 1 part winding or star DO position and status (On/Off) display (line 1)	…	---	---, 01…29 (****)
	Part winding DO/Star relay DO (*)	Compressor 1 delta DO position and status (On/Off) display (line 1)	…	---	---, 01…29 (****)
	---/ Delta relay DO (*)	Compressor 1 line DO position and status (On/Off) display (line 1)	…	---	---, 01…29 (****)
Caa09	DO	Unloader 1 for compressor 1 DO position (line 1)	…	---	---, 01…29 (****)
	Status (display only)	Status of unloader 1 for compressor 1 DI (line 1)	---	---	Closed / Open
	Logic	Logic of unloader 1 for compressor 1 DI (line 1)	NC	---	NC / NO
	Function (display only)	Unloader 1 for compressor 1 function status (line 1)	---	---	Not active / active
…	…	…	…	…	…
Caa14	AO	Compressor modulating device AO position (line 1)	0	---	---, 01…06 (****)
	Status (display only)	Modulating device output value (line 1)	0	%	0.0…100.0
…	…	…	…	…	…
Caaal	---	Suction pressure probe position (line1)	B1	---	---, B1…B10 (****)
	---	Suct pressure probe type (line 1)	4...20mA	---	---- 0-1V 0-10V 4...20mA 0-5V
	--- (display only)	Suction temperature value (line 1)	---	…	…(**)
	Upper value	Suct pressure maximum limit (line 1)	7.0 barg	…	…(**)
	Lower value	Suct pressure minimum limit (line 1)	-0,5 barg	…	…(**)
	Calibration	Suction pressure probe adjustment (line 1)	0.0 barg	…	…(**)
…	…	…	…	…	…

Mask index	Display Description	Description	Default	UOM	Values
Cab01	Regulation by	Compressor control by temperature or pressure (line 1)	PRESSURE	---	PRESSURE TEMPERATURE
	Regulation type	Compressor control type (line 1)	Neutral zone	---	Proportional band Neutral zone
Cab02	Minimum	Compressor setpoint lower limit (line 1)	…(**)	…	…(**)
	Maximum	Compressor setpoint higher limit (line 1)	…(**)	…	…(**)
Cab03	Setpoint	Compressor setpoint (line 1)	…(**)	…	…(**)
Cab04/Cab6 (**)	Reg.type	Type for proportional control (line 1)	PROPORT.	---	PROPORTIONAL PROP.+INT.
	Integral time	Integral time for proportional control (line 1)	300	s	0…999
Cab05/Cab7 (**)	Differential	Differential for proportional control (line 1)	…(**)	…	…(**)
Cab08/Cab10 (**)	NZ diff.	Neutral zone control differential (line 1)	…(**)	…	…(**)
	Activ.diff.	Neutral zone control differential for device activation (line 1)	…(**)	…	…(**)
	Deact.diff.	Neutral zone control differential for device deactivation (line 1)	…(**)	…	…(**)
Cab09/Cab11 (**)	En.force off power	Enable capacity immediate decreasing to 0 (line 1)	NO	---	NO / YES
	Setp.for force off	Threshold for capacity decreasing to 0 (line 1)	…(**)	…	…(**)
Cab12	Power load to 100% min time	Minimum time to increase capacity request to 100%, Neutral zone control (suction line 1)	15	s	0…9999
	Power load to 100% max time	Maximum time to increase capacity request to 100%, Neutral zone control (suction line 1)	90	s	0…9999
Cab13	Power unload to 0% min time	Minimum time to decrease capacity request to 0%, Neutral zone control (suction line 1)	30	s	0…9999
	Power unload to 0% max time	Maximum time to decrease capacity request to 0%, Neutral zone control (suction line 1)	180	s	0…9999
Cac01	Working hours Compressor 1	Compressor 1 operating hours (line 1)	---	h	0…999999
	(Check in…)	Compressor 1 remaining operating hours (line 1)	…	h	0…999999
	Compressor 2	Compressor 2 operating hours (line 1)	---	h	0…999999
	(Check in…)	Compressor 2 remaining operating hours (line 1)	…	h	0…999999
…	…	…	…	…	…
Cac11	Working hours Compressor 11	Compressor 11 operating hours (line 1)	---	h	0…999999
	(Check in…)	Compressor 11 remaining operating hours (line 1)	…	h	0…999999
	Compressor 12	Compressor 12 operating hours (line 1)	---	h	0…999999
	(Check in…)	Compressor 12 remaining operating hours (line 1)	…	h	0…999999
Cac13	Compressor threshold working hours	Compressor maintenance threshold hours (line 1)	88000	h	0…9999999
Cac14	Compressor hours reset	Reset compressor operating hours (line 1)	N	---	NO / YES
Cad01	Enable suction setpoint compensation	Enable setpoint compensation (suction line 1)	NO	---	NO / YES
	Enable compensation by analog IN	Enable setpoint compensation by probe (suction line 1)	NO	---	NO / YES
Cad02	Winter offset	Offset applied for Winter period	0.0	…	-999,9…999,9
	Closing offset	Offset applied for closing period	0.0	…	-999,9…999,9
Cad03	Enable setpoint compen-sation by scheduler	Enable scheduler setpoint compensation (suction line 1)	NO	---	NO / YES

Mask index	Display Description	Description	Default	UOM	Values
Cad04	Activ.Time Bands	Day of the week			LUN, MAR, ...DOM
	TB1: --:-- -> --:--	Time band 1 enabling and definition: start hour and minute, end hour and minute (suction line 1)	---	…	…
	…	…	…	…	…
	TB4: --:-- -> --:--	Time band 4 enabling and definition: start hour and minute, end hour and minute (suction line 1)	---	…	…
	Changes	Time band change action	---	---	--- CONFIRM&SAVE LOAD PREVIOUS CLEAR ALL
	Copy to	Copy settings to other days	0	---	MONDAY…SUNDAY; MON-FRI; MON-SAT; SAT&SUN; ALL DAYS
Cad05	Change set by DI	Enable setpoint compensation by digital input (suct/cond line 1)	NO	---	NO / YES
Cad06	---	Position of the probe for suction pressure setpoint compensation (line1)	---	---	---, B1…B10 (****)
	---	Type of the probe for suction pressure setpoint compensation (line1)	4...20mA	---	---- 0-1V - 0-10V- 4...20mA- 0-5V
	--- (display only)	Compensation value (line 1)	---	…	-99.9…99.9
	max	Maximum value of compensation (line 1)	---	…	-99.9…99.9
	min	Minimum value of compensation (line 1)	---	…	-99.9…99.9
Cad08	Enable floating suction setpoint	Enable floating setpoint (suction line 1)	NO	---	NO / YES
Cad09	Maximum floating setpoint	Max compressor floating setpoint settable (line 1)	…(**)	…	…(**)
	Minimum floating setpoint	Minimum compressor floating setpoint settable (line 1)	…(**)	…	…(**)
Cad10	Max.setpoint variation admitted	Maximum delta admitted for floating setpoint (suction line 1)	…(**)	…	…(**)
	Offline decreasing time	Reduction time when supervisor is offline for floating setpoint (suction line 1)	0	min	0…999
Cae01	Number of alarms for each compressor	Number of alarms for each compressor (line 1)	1/4 (*)	---	0…4/7 (*)
Cae02	Alarm1 description	Selection of the first compressor alarm description: Generic, Overload, High pressure, Low pressure, Oil (line 1)	…	---	☒ (Not available) ☐ (Not selected) ☒ (Selected)
Cae03	Alarm1 description (*)	Selection of the first compressor alarm description: Rotation, Oil warning (line 1)	…	---	☒ (Not available) ☐ (Not selected) ☒ (Selected)
Cae04	Activ.delay	Activation delay for compressor alarm 1 during working (line 1)	0	s	0…999
	Start up delay	Activation delay for compressor alarm 1 at start up (line 1)	0	s	0…999
	Reset	Type of reset for compressor alarm 1 (line 1)	AUT.	---	AUT. / MAN.
	Priority	Type of priority for compressor alarm 1 (line 1)	GRAVE	---	Light / Serious
…	…	…	…	…	…
Cae24	Suction pressure/temperature high alarm	Type of high suction pressure/temperature alarm threshold	ASSOLUTO	---	ABSOLUTE / RELATIVE
	Threshold	High suction pressure/temperature alarm threshold	…(**)	…	…(**)

Mask index	Display Description	Description	Default	UOM	Values
Cae25	Alarm diff.	High suction pressure/temperature alarm differential	…(**)	…	…(**)
	Alarm delay	High suction pressure/temperature alarm delay	120	s	0…999
Cae26	Suction pressure/temperature low alarm	Type of low suction pressure/temperature alarm threshold	ASSOLUTO	---	ABSOLUTE / RELATIVE
	Threshold	Low suction pressure/temperature alarm threshold	…(**)	…	…(**)
Cae27	Alarm diff.	Low suction pressure/temperature alarm differential	…(**)	…	…(**)
	Alarm delay	Low suction pressure/temperature alarm delay	30	s	0…999
Cae28	Enable oil temperature alarm management (*)	Enable Digital Scroll™ oil temperature alarm (line 1)	NO	---	NO / YES
	Enable discharge temp. alarm management (*)	Enable Digital Scroll™ discharge temperature alarm (line 1)	NO	---	NO / YES
Cae29	Low superheat alarm threshold	Threshold for low superheat alarm (line 1)	3.0	K	0.0…99,9
	Alarm diff.	Low superheat alarm differential (line 1)	1.0	K	0.0…9,9
	Switch OFF comp.	Enable compressor off for low superheat alarm (line 1)	NO	---	NO / YES
	Reset	Type of low superheat alarm reset (line 1)	MANUALE	---	MANUAL / AUTO
	Alarm delay	Low superheat alarm delay (line 1)	30	s	0…999
Cae30	Time of semi-automatic alarm evaluation	Time of semi-automatic alarm evaluation for screw compressors out of envelope (line 1)	2	min	0…999
	N° of reties before alarm becomes manual	Number of retries before alarm becomes manual (line 1)	3	---	0…9
Cae40	Switch off comp.1	Enable compressor 1 off for compressor inverter warning (line 1)	NO	---	NO / YES
	Reset	Type of compressor inverter warning reset (line 1)	MANUALE	---	MANUAL / AUTO
	Alarm delay	Compressor inverter warning activation delay (line 1)	0	s	0…999
Caf02	Compressors type	Type of compressors (line 1)	ALTERNATIVI	---	RECIPROCATING SCROLL SCREW
	Compressors number	Number of compressors (line 1)	2/3 (*)	---	1…6/12 (*)
Caf03	Cmp1,…	Enable compressors (line 1)	DIS	---	DIS / EN
Caf04	Refrigerant type	Type of refrigerant (suction Line 1)	R404A	---	R22 - R134a - R404A - R407C - R410A - R507A - R290 - R600 - R600a - R717 -R744 - R728 - R1270 - R417A - R422D
Caf05	Min on time	Minimum compressor on time (line 1)	30	s	0…999
	Min off time	Minimum compressor off time (line 1)	120	s	0…999
	Min time to start same compressor	Minimum time between same compressor starts (line 1)	360	s	0…999
Caf06	Ignition type	Type of compressors start up	DIRECT	---	DIRECT PART WINDING STAR DELTA
Caf07	Star time	Star relay run time	0	ms	0…9999
	Star line delay	Delay between star and line relay	0	ms	0…9999
	Star delta delay	Delay between star and delta relay	0	ms	0…9999
Caf08	Partwinding delay	Partwinding delay	0	ms	0…9999

Mask index	Display Description	Description	Default	UOM	Values
Caf09	Equalization	Enable compressors equalization at start up	NO	---	NO / YES
	Equalizat.time	Equalization duration	0	s	0…999
Caf10	Devices rotation type	Type of rotation	FIFO	---	------ FIFO LIFO TIME / CUSTOM
Caf11	Dev. unload sequence	Unloader sequence in relation to compressor activation (C=compressor, p=unloader)	CpppCppp	---	-------- CCpppppp CpppCppp
Caf12	Load up time	Delay between different compressor starts	10	s	0…999
	Load down time	Delay between different compressor stops	0	s	0…999
	Unloader delay	Delay between stages	0	s	0…999
Caf13	Custom rotation Switch ON order	Order of switch ON for compressor custom rotation	1	---	1…16
Caf14	Custom rotation Switch OFF order	Order of switch OFF for compressor custom rotation	1	---	1…16
Caf15	Modulate speed device	Compressor driver type (line 1)	NONE	---	NONE INVERTER DIGITAL SCROLL CONTINUOUS SCREW
Caf16	Min. frequency	Minimum inverter frequency	30	Hz	0…150
	Max. frequency	Maximum inverter frequency	60	Hz	0…150
Caf17	Min on time	Compressor controlled by inverter minimum ON time (line 1)	30	s	0…999
	Min off time	Compressor controlled by inverter minimum OFF time (line 1)	60	s	0…999
	Min time to start same compressor	Compressor controlled by inverter minimum time between same compressor starts (line 1)	180	s	0…999
Caf18	Digital Scroll™ comp. valve regulation	Digital Scroll™ comp. valve control type (line 1)	OPTIMISED CONTROL	---	OPTIMISED CONTROL VARIABLE CYCLE TIME FIXED CYCLE TIME
	Cycle time	Cycle time value (line 1)	13	s	12…20
Caf19	Oil dilution	Digital Scroll™, enable oil temperature alarm (line 1)	ENABLE	---	DISABLE/ENABLE
	Disch.temper.	Digital Scroll™, enable discharge temperature alarm (line 1)	ENABLE	---	DISABLE/ENABLE
Caf20	Compr.Manufacturer	Compressor manufacturer for screw compressors	Generico	---	GENERIC BITZER REFCOMP HANBELL
	Compressor series	Compressor series	…(***)	---	…(***)
Caf21	Number of valves	Number of valves used for capacity control	3	---	1…4
	Stages configuration	Stage configuration for screw compressor 1	25/50/75 /100	%	100; 50/100; 50/75/100; 25/50/75/100; 33/66/100

Mask index	Display Description	Description	Default	UOM	Values
Caf22	Common time	Enable common delay time (from one stage to the following) for screw compressor 1	ENABLE	---	DISABLE/ENABLE
	Common time/time between steps	Common delay time (from one stage and the following) for screw compressor 1	0	s	0…999
	From…to…	Minimum compressor delay time in order to reach each capacity stage from previous for screw compressor 1	…	s	0…999
Caf23	Intermittent valve time	Intermittent on/off time for capacity control valves for screw compressor 1	10	s	0…99
Caf24	Valve conf.	Configuration of the behaviour of the valves during start/stop and stages for screw compressor 1	…	---	O (ON) X (OFF) I (Intermittent) P (Pulsing)
Caf25	Limit comp.permanence at min power	Enable time limit at minimum capacity for screw compressor 1	Enable	---	DISABLE ENABLE
	Max.perman.time	Max time for compressor operation at minimum capacity for screw compressor 1	60	s	0…9999
	Limitat.on for	Time to return to minimum after the compressor was forced to second stage after staying at minimum for maximum time for screw compressor 1	0	s	0…9999
Caf26	Min.output power	Minimum compressor capacity in case of high capacity range (usually 25%), only for continuous compressors	25	%	0…100
Caf27	Compressor start-up phase duration	Start-up phase time (after electric start-up)	10	s	0…999
	Maximun time to reach -maximum power	Maximum time in order to reach maximum compressor capacity (continuous capacity control)	120	s	0…999
	-minimum power	Minimum time in order to reach minimum compressor capacity (continuous capacity control)	120	s	0…999
Caf28	Intermittent	Intermittent on/off time for capacity control valves	10	s	0…99
	Pulse period	Pulsing period for valves (for continuous compressors)	3	s	1…10
	Min.Puls.Incr.	Minimum pulse time for increase capacity (valves control)	0,5	s	0.0…9,9
	Max.Puls.Incr.	Maximum pulse time for increase capacity (valves control)	1.0	s	0.0…9,9
	Min.Puls.Decr.	Minimum pulse time for decrease capacity (valves control)	0,5	s	0.0…9,9
	Max.Puls.Decr.	Maximum pulse time for decrease capacity (valves control)	1.0	s	0.0…9,9
Caf29	Valve conf.	Configuration of the behaviour of the valves during start/stop, incr.min% to 100%, decr.100% to min%, standby, decr.100% to 50%	…	---	O (ON) X (OFF) I (Intermittent) P (Pulsing)
Caf36	Number of valves	Number of control capacity valves for screw compressor 2	3	---	1…4
	Stages configuration	Stage configuration for screw compressor 2	25/50/75/100	%	100; 50/100; 50/75/100; 25/50/75/100; 33/66/100
…	…	…	…	…	…
Caf90	Different sizes	Enable compressors of different sizes (line 1)	NO	---	NO / YES
	Different number of valves	Enable compressor capacity control (line 1)	NO	---	NO/SI

Mask index	Display Description	Description	Default	UOM	Values
Caf91	S1	Enable size and size for compressor group 1 (line 1)	Si 10.0	--- kW	NO/SI 0.0…500.0
	…	…	…	…	…
	S4	Enable size and size for compressor group 4 (line 1)	NO	--- --- kW	--- NO/SI 0.0…500.0
Caf92	S1	Enable stages and stages for compressor group 1 (line 1)	Si 100	--- %	NO/SI 100; 50/100; 50/75/100; 25/50/75/100; 33/66/100
	…	…	…	…	…
	S4	Enable stages and stages for compressor group 4 (line 1))	NO ---	--- kW	NO/SI S1…S4
Caf93	C01	Size group for compressor 1 (line 1) or presence of inverter	S1	---	S1…S4/INV
	…	…	…	…	…
	C12	Size group for compressor 6 (line 1)	S1	---	S1…S4
Caf95	Min on time	Minimum Digital Scroll™ compressor On time (line 1)	60	s	0…999
	Min off time	Minimum Digital Scroll™ compressor Off time(line 1)	180	s	0…999
	Min time to start same compressor	Minimum time between starts for Digital Scroll™ compressor (line 1)	360	s	0…999
	Reactivate start-up procedure after	Digital Scroll™ compressor start-up procedure reactivation time (line 1)	480	min	0…9999
Cag01	Minimum voltage	Voltage corresponding to the minimum capacity of the inverter (line 1)	0.0	V	0.0…10.0
	Maximum voltage	Voltage corresponding to the maximum capacity of the inverter (line 1)	10.0	V	0.0…10.0
	Nominal freq.	Nominal frequency (nominal capacity at nominal frequency) (line 1)	50	Hz	0…150
	Nominal power	Nominal capacity for compressor managed by inverter at nominal frequency (line 1)	10.0	Kw	0.0…500.0
Cag02	Rising time	Time to pass from min capacity to max capacity for modulating device (line 1)	90	s	0…600
	Falling time	Time to pass from max capacity to min capacity for modulating device (line 1)	30	s	0…600
Cag03	Enable compressor modulation inside neutral zone	Enable compressor 1 modulation inside Neutral zone (line 1)	SI	---	NO / YES
Cag04	Enable suction press. backup probe	Enable screens for suction pressure backup probe configuration (line 1)	NO	---	NO / YES
Cag05	Request in case of regulat.probe fault	Compressor forcing value in case of suction probes fault (line 1)	50.0	%	0.0…100.0
Cag06	Enable anti liquid return valve	Enable liquid non return function (line 1)	NO	---	NO / YES
Cag07	Enable compressor envelop management (*)	Enable compressor envelope management (screw only). *For details on configuration contact Carel.*	NO	---	NO / YES

The following parameters refer to line 2, for details see the corresponding parameters for line 1 above

Mask index	Display Description	Description	Default	UOM	Values
Cba01	DI	Alarm 1 for compressor 1 DI position (line 2)	03	---	---, 01…18, B1…B10 (****)
	Status (display only)	Status of alarm 1 for compressor 1 DI (line 2)	---	---	Closed / Open
	Logic	Logic of alarm 1 for compressor 1 DI (line 2)	NC	---	NC NO
	Function (display only)	Alarm 1 for compressor 1 function status (line 2)	---	---	Not active / active
…	…	…	…	…	…
Cbb01	Regulation by	Compressor control by temperature or pressure (line 2)	PRESSURE	---	PRESSIONE TEMPERATURA
	Regulation type	Compressor control type (line 2)	Neutral zone	---	Proportional band Neutral zone
…	…	…	…	…	…
Cbc01	Working hours Compressor 1	Compressor 1 max operating hours (line 2)	---	---	0…999999
…	…	…	…	…	…
Cbd01	Enable suction setpoint compensation	Enable setpoint compensation (suction line 2)	NO	---	NO / YES
	Enable compensation by analog IN	Enable setpoint compensation by probe (suction line 2)	NO	---	NO / YES
…	…	…	…	…	…
Cbe01	Number of alarms for each compressor	Number of alarms for each compressor (line 2)	1	---	0…4
…	…	…	…	…	…
Cbf02	Compressors type	Type of compressors (line 2)	RECIPROCATING	---	RECIPROCATING / Scroll
	Compressors number	Number of compressors (line 2)	2/3 (*)	---	1…12
…	…	…	…	…	…
Cbg01	Minimum voltage	Voltage corresponding at the minimum capacity of the inverter (line 2)	0.0	Hz	0.0…10.0
	Maximum voltage	Voltage corresponding at the maximum capacity of the inverter (line 2)	10.0	Hz	0.0…10.0
	Nominal freq.	Nominal frequency (nominal capacity at nominal frequency) (line 2)	50	Hz	0…150
	Nominal power	Nominal capacity for compressor managed by inverter at nominal frequency (line 2)	10.0	Kw	0.0…500.0
…	…	…	…	…	…

Mask index	Display Description	Description	Default	UOM	Values
D.condensers (The I/Os available depend on the selected configuration, the following are just some examples. For the complete list of I/O positions available see Appendix A.5)					
Daa01	DI	Fan 1 overload DI position (line 1)	…	---	---, 01…18, B1…B10 (****)
	Status (display only)	Status of fan 1 overload DI (line 1)	---	---	Closed Open
	Logic	Logic of fan 1 overload DI (line 1)	NC	---	NC / NO
	Function (display only)	Fan 1 overload function status (line 1)	---	---	Not active Active
…	…	…	…	…	…

Mask index	Display Description	Description	Default	UOM	Values
Daa18	---	Condensing pressure backup probe position (line1)	B1	---	---, B1…B10 (****)
	---	Condensing pressure backup probe type (line 1)	4...20mA	---	---- 0-1V 0-10V 4...20mA 0-5V
	--- (display only)	Condensing pressure backup probe value (line 1)	---	…	…(**)
	Upper value	Cond. pressure backup probe max. limit (line 1)	30.0 barg	…	…(**)
	Lower value	Cond. pressure backup probe min. limit (line 1)	0.0 barg	…	…(**)
	Calibration	Cond. pressure backup probe adjustment (line 1)	0.0 barg	…	…(**)
…	…	…	…	…	…
Daa21	DO	Fan 1 DO position (line 1)	03	---	---, 01…29 (****)
	Status (display only)	Status of fan 1 DO (line 1)	---	---	Closed / Open
	Logic	Logic of fan 1 DO (line 1)	NC	---	NC / NO
	Function (display only)	Fan 1 function status (line 1)	---	---	Not active / active
…	…	…	…	…	…
Daa38	AO	Inverter fan AO position (line 1)	0	---	---, 01…06 (****)
	Status (display only)	Inverter fan output value (line 1)	0	%	0.0…100.0
…	…	…	…	…	…
Dab01	Regulation by	Condenser control by temperature or pressure (line 1)	PRESSURE	---	PRESSURE/TEMPERATURE
	Regulation type	Condenser control type (line 1)	PROPORTI. BAND	---	PROPORTIONAL BAND NEUTRAL ZONE
Dab02	Minimum	Condenser setpoint lower limit (line 1)	…(**)	…	…(**)
	Maximum	Condensers setpoint higher limit (line 1)	…(**)	…	…(**)
Dab03	Setpoint	Condenser setpoint (line 1)	…(**)	…	…(**)
Dab04	Fans work only when at least one compressor works	Enable fan operation linked to compressor operation	NO	---	NO / YES
Dab05	Cut_Off enable	Enable fan cut-off function	NO	---	NO / YES
	Cut-Off request	Cut-off value	0.0	%	0.0…100.0
	Diff.	Cut-off differential	…(**)	…	…(**)
	Hysteresis	Cut-off hysteresis	…(**)	…	…(**)
Dab6/ Dab8 (**)	Reg.type	Type for proportional control (condenser line 1)	PROPORT.	---	PROPORT. / PROP.+INT.
	Integral time	Integral time for prop. control (cond. line 1)	300	s	0…999
Dab7/ Dab9 (**)	Differential	Differential for proportional control (cond. line 1)	…(**)	…	…(**)
Dab10/Dab11 (**)	NZ diff.	Neutral zone control differential (line 1)	…(**)	…	…(**)
	Activ.diff.	Neutral zone control differential for device activation (line 1)	…(**)	…	…(**)
	Deact.diff.	Neutral zone control differential for device deactivation (line 1)	…(**)	…	…(**)
Dab12/Dab13 (**)	En.force off power	Enable capacity immediate decreasing to 0 (line 1)	NO	---	NO / YES
	Setp.for force off	Threshold for capacity decreasing to 0 (line 1)	…(**)	…	…(**)
Dab14	Power load to 100% min time	Minimum time to increase capacity request to 100%, Neutral zone control (condenser line 1)	15	s	0…9999
	Power load to 100% max time	Maximum time to increase capacity request to 100%, Neutral zone control (condenser line 1)	90	s	0…9999

Mask index	Display Description	Description	Default	UOM	Values
Dab15	Power unload to 0% min time	Minimum time to decrease capacity request to 0%, Neutral zone control (condenser line 1)	30	s	0…9999
	Power unload to 0% max time	Maximum time to decrease capacity request to 0%, Neutral zone control (condenser line 1)	180	s	0…9999
Dad01	Enable condensing setpoint compensation	Enable setpoint compensation (condenser line 1)	NO	---	NO / YES
Dad02	Winter offset	Enable setpoint compensation (condenser line 1)	0.0	…	-999,9…999,9
	Closing offset	Offset applied for Winter period	0.0	…	-999,9…999,9
Dad03	Enable setpoint compensation by scheduler	Enable scheduler setpoint compensation (condenser line 1)	NO	---	NO / YES
Dad04	Activ.Time Bands	Day of the week	---	---	MON, ...SUN
	TB1: --:-- -> --:--	Time band 1 enabling and definition: start hour and minute, end hour and minute (suction line 1)	---	…	…
	…	…	…	…	…
	TB4: --:-- -> --:--	Time band 4 enabling and definition: start hour and minute, end hour and minute (suction line 1)	---	…	…
	Changes	Time band changes action	---	---	--- CONFIRM&SAVE LOAD PREVIOUS CLEAR ALL
	Copy to	Copy settings to other days	0	---	MONDAY…SUNDAY; MON-FRI; MON-SAT; SAT&SUN; ALL DAYS
Dad05	Enable floating condensing setpoint	Enable floating setpoint (condenser line 1)	NO	---	NO/ YES
Dad06	Offset for external temperature	Temperature delta for floating setpoint (condenser line 1)	0.0	…	-9,9…9,9
	Controlled by: -Digital input	Enable floating condensing from digital input	NO	---	NO / YES
Dad07	Change set by digital input	Enable setpoint compensation by digital input (suction/condensing line 1)	NO	---	NO / YES
Dae01	Cond.pressure/temperature high alarm	Type of high condensing pressure/temperature alarm threshold (line 1)	ABSOLUTE	---	ABSOLUTE / RELATIVE
	Threshold	High condensing pressure/temperature alarm threshold (line 1)	24.0 barg	…	…(**)
Dae02	Cond.pressure/temperature alarm diff.	High condensing pressure/temperature alarm differential (line 1)	1.0 barg	…	…(**)
	Alarm delay	High condensing pressure/temperature alarm delay (line 1)	60	s	0…999
Dae03	Cond.pressure/temperature low alarm	Type of low condensing pressure/temperature alarm threshold (line 1)	ABSOLUTE	---	ABSOLUTE / RELATIVE
	Threshold	Low condensing pressure/temperature alarm threshold (line 1)	7.0 barg	…	…(**)
Dae04	Cond.pressure/temperature alarm diff.	Low condensing pressure/temperature alarm differential (line 1)	1.0 barg	…	…(**)
	Alarm delay	Low condensing pressure/temperature alarm delay (line 1)	30	s	0…999
Dae05	Common fan overload	Common fan overload (line 1)	YES	---	NO / YES
	Delay	Common fan overload alarm activation delay	AUTOMATIC	---	AUTOMATIC MANUAL
	Reset	Type of common fan overload alarm reset	0	s	0…500

Mask index	Display Description	Description	Default	UOM	Values
Daf01	Number of present fans	Number of fans (line 1)	3	---	0…16
Daf02	Fan1, Fan2, …	Enable fans 1 to 12 (line 1)	AB	---	DIS / AB
Daf03	Fan13, Fan14, …	Enable fans 13 to 16 (line 1)	AB	---	DIS / AB
Daf04	Refrigerant type	Type of refrigerant (condenser line 1)	R404A	---	R22 - R134a - R404A - R407C - R410A - R507A - R290 - R600 - R600a - R717 - R744 - R728 - R1270 - R417A - R422D
Daf05	Devices rotation type	Type of rotation devices (condenser line 1)	FIFO	---	------ FIFO LIFO TEMPO CUSTOM
Daf07, Daf08	Custom rotation Switch ON order	Switch ON order for fans with custom rotation (condenser line 1)	1	---	1…16
Daf09, Daf10	Custom rotation Switch OFF order	Switch OFF order for fans with custom rotation (condenser line 1)	1	---	1…16
Dag01	Modulate speed device	Fan driver type (line 1)	NONE	---	NONE INVETER PHASE CONTROL
Dag02	Neutral zone reg.	Fan control also inside Neutral zone (line 1)	NO	---	NO / YES
	Min.out value	Minimum voltage for compressor inverter (line 1)	0.0	V	0.0…9,9
	Max.out value	Maximum voltage for compressor inverter (line 1)	10.0	V	0.0…99,9
	Min. power refer.	Minimum capacity of fan modulating device (line 1)	60	%	0…100
	Max. power refer.	Maximum capacity of fan modulating device (line 1)	100	%	0…999
Dag03	Rising time	Time to pass from min capacity to max capacity for fan modulating device (line 1)	1200	s	0…32000
	Falling time	Time to pass from max capacity to min capacity for fan modulating device (line 1)	1200	s	0…32000
	Num.control.fans	Number of fans under inverter (only for alarm enabling)	1	---	0…16
Dag04	Split Condenser	Enable split condenser (line 1)	NO	---	NO / YES
	Controlled by: -Digital input	Split Condenser controlled by digital input (line 1)	---	---	NO / YES
	-External temp.	Split Condenser controlled by outside temperature (line 1)	---	---	NO / YES
	-Scheduler	Split Condenser controlled by scheduler (line 1)	---	---	NO / YES
Dag05	Est. Temp.Thr.	Split condenser by outside temperature management setpoint (line 1)	10.0 °C	…	-99,9…99,9
	Est. Temp.Diff.	Split condenser by outside temperature management differential (line 1)	2,5 °C	…	-99,9…99,9
Dag06	Type	Fans enabled with split condenser (line 1)	CUSTOM	---	CUSTOM ODD EVEN GREATER THAN LESS THAN
	---	Only when enabling type is GREATER THAN or LESS THAN, number of fans to consider for splitting (line 1)	0	---	0…16

Mask index	Display Description	Description	Default	UOM	Values
Dag09	Disable split condenser as first stage of HP pressostat	Disable split condenser when high condensing pressure prevent occurs (line 1)	NO	---	NO / YES
	for	Duration of split condenser deactivation for high condensing pressure prevent (line 1)	0	h	0…24
Dag10	Anti-noise	Enable silencer (line 1)	DISAB.	---	DISABLE / ENABLE
	Max output	Maximum request allowed when silencer function is active (line 1)	75.0 %	%	0.0…100.0
	Controlled by: -Digital input	Silencer controlled by digital input (condenser line 1)	NO	---	NO / YES
	-Scheduler	Silencer controlled by scheduler (condenser line 1)	NO	---	NO / YES
Dag12	Activ.Time Bands	Day of the week	---	---	MON, ..., SUN
	TB1: --:-- -> --:--	Time band 1 enabling and definition: start hour and minute, end hour and minute (condenser line 1)	---	…	…
	…	…	…	…	…
	TB4: --:-- -> --:--	Time band 4 enabling and definition: start hour and minute, end hour and minute (condenser line 1)	---	…	…
	Changes	Time band changes action	---	---	--- CONFIRM&SAVE LOAD PREVIOUS CLEAR ALL
	Copy to	Copy settings to other days	0	---	MONDAY…SUNDAY; MON-FRI; MON-SAT; SAT&SUN; ALL DAYS
Dag13	Speed Up	Enable speed up (condenser line 1)	YES	---	NO / YES
	Speed Up time	Speed up time (condenser line 1)	5	s	0…60
	Ext.Temp.Manage	Enable speed up management by outside temperature (conden. line 1)	DIS	---	DIS / AB
	Ext.Temp.Thresh.	Outside temperature threshold for speed up management (condenser line 1)	25.0 °C	…	-99,9…99,9
	Ext.Temp.Diff.	Outside temperature differential for speed up management (condenser line 1)	2,5 °C	…	-99,9…99,9
Dag14	Enable condensing press. backup probe	Enable the screens for condensing pressure backup probe configuration (condenser line 1)	NO	---	NO / YES
Dag15	Request in case of egulat. probes fault	Value of fans forcing in case of condensing probes fault (line 1)	50.0	%	0.0…100.0

The following parameters refer to line 2, for details see the corresponding parameters for line 1 above

Dba01	DI	Fan 1 overload DI position (line 2)	…	---	---, 01…18, B1…B10 (****)
	Status (display only)	Status of fan 1 overload DI (line 2)	---	---	Closed / Open
	Logic	Logic of fan 1 overload DI (line 2)	NC	---	NC / NO
	Function (display only)	Fan 1 overload function status (line 2)	---	---	Not active / active
…	…	…	…	…	…
Dbb01	Regulation by	Condenser control by temperature or pressure (line 2)	PRESSURE	---	PRESSURE TEMPERATURE
	Regulation type	Condenser control type (line 2)	PROPORTIONAL BAND	---	Proportional band Neutral zone
…	…	…	…	…	…

Mask index	Display Description	Description	Default	UOM	Values
Dbd01	Enable condensing setpoint compensation	Enable setpoint compensation (condenser line 2)	NO	---	NO / YES
…	…	…	…	…	…
Dbe01	Cond.temperature/pressure high alarm	Type of high condensing pressure/temperature alarm threshold (line 2)	ABSOLUTE	---	ABSOLUTE / RELATIVE
	Threshold	High condensing pressure/temperature alarm threshold (line 2)	24.0 barg	…	…(**)
…	…	…	…	…	…
Dbf01	Number of present fans	Number of fans (line 2)	3	---	0…16
…	…	…	…	…	…
Dbg01	Modulate speed device	Fan driver type (line 2)	NONE	---	NONE INVETER PHASE CONTROL
…	…	…	…	…	…

Mask index	Display description	Description	Default	UOM	Values

E.other funct. (The I/Os available depend on the selected configuration, the following are just some examples. For the complete list of I/O positions available see Appendix A.5)

Eaaa04	---	Oil temperature probe position (line1)	B1	---	---, B1…B10 (****)
	---	Oil temperature probe type (line 1)	4...20mA	---	--- NTC - PT1000 - 0-1V - 0-10V - 4...20mA - 0-5V - HTNTC
	--- (display only)	Oil temperature probe value (line 1)	---	…	… (**)
	Upper value	Oil temperature probe max. limit (line 1)	30.0 barg	…	… (**)
	Lower value	Oil temperature probe min. limit (line 1)	0.0 barg	…	… (**)
	Calibration	Oil temperature probe adjustment (line 1)	0.0 barg	…	… (**)
…	…	…	…	…	…
Eaaa45	DO	Oil level valve DO position, compressor 6 (line 1)	03	---	---, 01…29 (****)
	Status (display only)	Oil level valve DO status, compressor 6 (line 1)	---	---	Closed / Open
	Logic	Oil level valve DO logic, compressor 6 (line 1)	NC	---	NC / NO
	Function (display only)	Oil level function status, compressor 6 (line 1)	---	---	Not active / Active
Eaab04	Common oil cooler	Enable common oil cooling (line 1)	SI	---	NO / YES
	Oil pumps number	Number of oil pumps for common oil cooler (line 1)	0	---	0 to 1 (Analog output) 0 to 2 (Digital outputs)
	Enable Aout pump	Enable AO of common oil cooler pump (line 1)	SI	---	NO (Digital outputs) YES (Analog output)
Eaab05	Setpoint	Common oil cooler setpoint (line 1)	0.0 °C	…	… (**)
	Differential	Common oil cooler differential (line 1)	0.0 °C	…	-9.9…9.9
Eaab06	Pump start delay	Time delay before the start-up of pump 2 after pump1 turns on (line 1)	0	s	0…999
Eaab07	Oil pumps number	Screw compressors: number of oil cooler pumps enabled (line1)	0	---	0 to 1 (Analog output) 0 to 2 (Digital outputs)
	Enable Aout pump	Screw compressors: enable AO for oil cooler pump (line 1)	SI	---	NO (Digital outputs) YES (Analog output)

Mask index	Display description	Description	Default	UOM	Values
Eaab08	Setpoint	Screw compressors: oil temperature setpoint (line 1)	0.0	°C/°F	…
	Differential	Screw compressors: oil temperature differential (line 1)	0.0	°C/°F	…
Eaab09	Threshold	Common oil high temperature alarm threshold (line 1)	100.0 °C	°C/°F	…
	Differential	Common oil high temperature alarm differential (line 1)	10.0 °C	°C/°F	…
	Delay	Common oil high temperature alarm delay (line 1)	0	s	0 to 32767
Eaab10	En.oil lev.manag.	Enable oil level management (line 1)	NO	---	NO / YES
	Num.Alarm oil level	Number of compressor alarm associated with oil level (line 1)	0	---	0 to 4/7 (*)
Eaab11	Time open	Oil level valve opening time (line 1)	0	s	0…999
	Time close	Oil level valve closing time (line 1)	0	s	0…999
Ebaa01	DO	Subcooling valve DO position (line 1)	…	---	---, 01…29 (****)
	Status (display only)	Status of subcooling valve DO (line 1)	---	---	Closed / Open
	Logic	Logic of subcooling valve (line 1)	NO	---	NC / NO
	Function (display only)	Subcooling valve function status (line 1)	---	---	Not active / Active
Ebab01	Subcooling control	Enable subcooling function (line 1)	NO	---	NO / YES
	---	Subcooling control type (line 1)	BY COND. & LIQUID TEMP.	---	BY COND.& LIQUID TEMP. ONLY BY LIQUID. TEMP.
	Threshold	Threshold for subcooling control (line 1)	0.0 °C	…	-9999.9…9999.9
	Subcool.value (display only)	Subcooling value (line 1)	0.0 °C	…	-999.9…999.9
Ecaa01	---	Discharge temperature probe position, compressor 1 (line 1)	B1	---	---, B1…B10 (****)
	---	Type of discharge temperature probe, compressor 1 (line 1)	4...20mA	---	--- NTC - PT1000 - 0-1V - 0-10V-4...20mA - 0-5V - HTNTC
	--- (display only)	Discharge temperature value, compressor 1 (line 1)	---	…	… (**)
	Upper value	Maximum discharge temperature value, compressor 1 (line 1)	30.0 barg	…	… (**)
	Lower value	Minimum discharge temperature value, compressor 1 (line 1)	0.0 barg	…	… (**)
	Calibration	Discharge temperature probe calibration, compressor 1 (line 1)	0.0 barg	…	… (**)
…	…	…	…	…	…
Ecaa12	DO	Economizer valve DO position, compressor 6 (line 1)	…	---	---, 01…29 (****)
	Status (display only)	Economizer valve DO status, compressor 6 (line 1)	---	---	Closed / Open
	Logic	Economizer valve DO logic, compressor 6 (line 1)	NO	---	NC / NO
	Function (display only)	Economizer valve function status, compressor 6 (line 1)	---	---	Not active / Active
Ecab04 (*)	Economizer	Enable economizer function (line 1)	NO	---	NO / YES
	Compr.Power Thr.	Capacity percentage threshold for economizer activation (line 1)	0	%	0…100
	Press.Lim.	Condensing temperature threshold for economizer activation (line 1)	0.0 °C	…	-999.9…999.9
	Disch.T.Thr.	Discharge temperature threshold for economizer activation (line 1)	0.0 °C	…	-999.9…999.9
Ecab05 (*)	Economizer	Enable economizer function for screw compressor 1 (line 1)	NO	---	NO / YES
	Setpoint	Setpoint for economizer function with discharge temperature for screw compressor 1	…(**)	…	… (**)
	Differential	Differential for economizer function with discharge temperature for screw compressor 1	…(**)	…	… (**)

Mask index	Display description	Description	Default	UOM	Values
Ecab06 (*)	Min.power activ.	Minimum screw compressor 1 capacity for economizer activation	75	%	0; 25; 50; 75; 100
	Cond.press.check	Enable economizer function with condensing temperature for screw compressor 1	DIS	---	DIS / EN
	Setpoint	Setpoint for economizer function with condensing temperature for screw compressor 1	60.0	°C/°F	…
	Differential	Differential for economizer function with condensing temperature for screw compressor 1	5.0	°C/°F	…
Edaa01	---	Discharge temperature probe position, compressor 1 (line 1)	B1	---	---, B1…B10 (****)
	---	Compressor 1 discharge temperature probe position (line1)	4...20mA	---	--- NTC - PT1000 - 0-1V - 0-10V-4...20mA - 0-5V - HTNTC
	--- (display only)	Compressor 1 discharge temperature probe type (line 1)	---	…	… (**)
	Upper value	Compressor 1 discharge temperature probe value (line 1)	30.0 barg	…	… (**)
	Lower value	Compressor 1 discharge temperature probe max. limit (line 1)	0.0 barg	…	… (**)
	Calibration	Compressor 1 discharge temperature probe min. limit (line 1)	0.0 barg	…	… (**)
…	…	…	…	…	…
Edaa12	DO	Injection valve DO position, compressor 6 (line 1)	…	---	---, 01…29 (****)
	Status (display only)	Injection valve DO status, compressor 6 (line 1)	---	---	Closed / Open
	Logic	Injection valve DO logic, compressor 6 (line 1)	NO	---	NC / NO
	Function (display only)	Injection valve function status, compressor 6 (line 1)	---	---	Not active / Active
Edab01/Edab03 (*)	Liquid Injection	Enable liquid injection function (line 1)	DIS	---	DIS / AB
	Threshold	Liquid injection set point (line 1)	70.0 °C	…	… (**)
	Differential	Liquid injection differential (line 1)	5.0	…	… (**)
Eeaa02	DI	Heat recovery from digital input DI position (line 1)	…	---	---, 01…18, B1…B10 (****)
	Status (display only)	Status of heat recovery DI (line 1)	---	---	Closed / Open
	Logic	Logic of heat recovery DI (line 1)	NC	---	NC / NO
	Function (display only)	Status of heat recovery from digital input DI function (line 1)	---	---	Not active / active
Eeaa03	DO	Heat recovery pump DO position (line 1)	---	---	---, 01…29
	…	…	…	…	…
	Function (display only)	Status of heat recovery pump (line 1)	---	---	Not active / active
Eeaa04	AO	Heat recovery damper DO position (line 1)	---	---	---, 01…29
	…	…	…	…	…
	Status	Heat recovery damper DO status (line 1)	---	---	Not active / active
Eeaa05	---	Heat recovery outlet temperature probe position (line 1)	B1	---	---, B1…B10 (****)
	---	Type of heat recovery outlet temperature probe (line 1)	4...20mA	---	--- NTC - PT1000 - 0-1V - 0-10V - 4...20mA - 0-5V - HTNTC
	--- (display only)	Heat recovery outlet temperature value (line 1)	---	…	…(**)
	Upper value	Maximum heat recovery outlet temperature value (line 1)	30.0 barg	…	…(**)
	Lower value	Minimum heat recovery outlet temperature value (line 1)	0.0 barg	…	…(**)
	Calibration	Heat recovery outlet temperature probe calibration (line 1)	0.0 barg	…	…(**)
Eeab01	Enable Heat Reclaim	Enable heat recovery function (line 1)	NO	---	NO / YES
Eeab02	Condensing pressure Lower Limit	Condensing pressure lower limit for heat recovery (line 1)	0.0 barg	…	… (**)
Eeab03	Modulation by tempe-rature	Enable heat recovery control by discharge temperature (line 1)	NO	---	NO / YES
Eeab04	Setpoint	Heat recovery: discharge temperature setpoint (line 1)	0.0 °C	…	… (**)
	Differential	Heat recovery: discharge temperature differential (line 1)	0.0 °C	…	0.0…99,9

Mask index	Display description	Description	Default	UOM	Values
Eeab05	Disable floating condensing pressure	Disable floating condensing pressure when heat reclaim is active	NO	---	NO / YES
	Setpoint offset	Offset that must be applied to the condensing setpoint instead of floating condensing when heat reclaim is active	---	…	-99.9…99.9
Eeab06	Enable activation by scheduler	Enable heat recovery control by scheduler (line 1)	NO	---	NO / SI
Eeab07	Active.Time Bands	Week of the day	---	---	MON, ..., SUN
	TB1: --:-- -> --:--	Time band 1 enabling and definition: start hour and minute, end hour and minute (condenser line 1)	---	…	…
	…	…	…	…	…
	TB4: --:-- -> --:--	Time band 4 enabling and definition: start hour and minute, end hour and minute (condenser line 1)	---	…	…
	Changes	Time band changes action	---	---	--- CONFIRM&SAVE LOAD PREVIOUS CLEAR ALL
	Copy to	Copy settings to other days	0	---	MONDAY…SUNDAY; MON-FRI; MON-SAT; SAT&SUN; ALL DAYS
Efa05	Gen.Funct.1	Enable generic stage function 1	DISAB.	---	DISABLE / ENABLE
	…	..	…	…	…
	Gen.Funct.5	Enable generic stage function 5	DISAB.	---	DISABLE / ENABLE
Efa06	Regulation variable	Control variable for generic stage function 1	---	---	…
	Mode	Direct or reverse control	DIRECT	---	DIRECT / REVERSE
Efa07	Enable	Enabling variable for generic stage function 1	---	---	…
	Description	Enable description change	SKIP	---	SKIP / CHANGE
	---------------	Description	---	---	…
Efa08	Setpoint	Setpoint for generic stage function 1	0.0 °C	…	… (**)
	Differential	Differential for generic stage function 1	0.0 °C	…	… (**)
Efa09	High alarm	High alarm enabling for generic stage function 1	Disab.	---	DISABLE / ENABLE
	High alarm	High alarm threshold for generic stage function 1	0.0 °C	…	… (**)
	Delay time	High alarm delay for generic stage function 1	0	s	0…9999
	Alarm type	Low alarm enabling for generic stage function 1	LIGHT	---	Light / Serious
	Low alarm	Low alarm threshold for generic stage function 1	Disab.	---	DISABLE / ENABLE
	Low alarm	Low alarm delay for generic stage function 1	0.0 °C	…	… (**)
	Delay time	Low alarm delay for generic stage function 1	0	s	0…9999
	Alarm type	Type of low alarm for generic stage function 1	LIGHT	---	Light / Serious
…	…	…	…	…	…
Efb05	Gen.Modulat.1	Enable generic modulating function 1 management	DISAB.	---	DISABLE / ENABLE
	Gen.Modulat.2	Enable generic modulating function 2 management	DISAB.	---	DISABLE / ENABLE
Efb06	Regulation variable	Control variable for generic modulating function 1	---	---	…
	Mode	Direct or reverse modulation	DIRECT	---	DIRECT / REVERSE
Efb07	Enable	Enabling variable for generic modulating function 1	---	---	…
	Description	Enable description change	SKIP	---	SKIP / CHANGE
	---------------	Description	---	---	…
Efb08	Setpoint	Setpoint for generic modulating function 1	0.0 °C	…	… (**)
	Differential	Differential for generic modulating function 1	0.0 °C	…	… (**)

Mask index	Display description	Description	Default	UOM	Values
Efb09	High alarm	High alarm enabling for generic modulating function 1	DISAB.	---	DISABLE / ENABLE
	High alarm	High alarm threshold for generic modulating function 1	0.0 °C	…	… (**)
	Delay time	High alarm delay for generic modulating function 1	0	s	0…9999
	Alarm type	Low alarm enabling for generic modulating function 1	LIGHT	---	Light / Serious
Efb010	Out upper limit	Output upper limit for generic modulating function 1	100.0	%	0…100
	Out lower limit	Output lower limit for generic modulating function 1	0.0	%	0…100
	Enable cutoff	Enable cut off function for generic modulating function 1	NO	---	NO / SI
	Cutoff diff.	Cut off differential for generic modulating function 1	0.0 °C	…	… (**)
	Cutoff hys.	Cut off hysteresis for generic modulating function 1	0.0 °C	…	… (**)
Efb20	Low alarm	Low alarm enabling for generic modulating function 1	Disab.	---	DISABLE / ENABLE
	Low alarm	Low alarm threshold for generic modulating function 1	0.0 °C	…	… (**)
	Delay time	Low alarm delay for generic modulating function 1	0	s	0…9999
	Alarm type	Low alarm type for generic modulating function 1	LIGHT	---	Light / Serious
…	…	…	…	…	…
Efc05	Gen.alarm 1	Enable generic alarm function 1 management	DISAB.	---	DISABLE / ENABLE
	Gen.alarm 2	Enable generic alarm function 2 management	DISAB.	---	DISABLE / ENABLE
Efc06	Regulation variable	Monitored variable for generic alarm function 1	---	---	…
	Enable	Enabling variable for generic alarm function 1	---	---	…
	Description	Enable description change	SKIP	---	SKIP / CHANGE
	---------------	Description	---	---	…
Efc07	Alarm type	Alarm type for generic alarm function 1	LIGHT	---	Light / Serious
	Delay time	Delay for generic alarm function 1	0	s	0…9999
…	…	…	…	…	…
Efd05	Generic Function Scheduler	Enable generic scheduler function	DISAB.	---	DISABLE / ENABLE
	Gen.funct.scheduling connected to global scheduling	Generic scheduler function considers the same special days and periods of global scheduler	NO	---	NO / YES
Efd06	Enable	Enabling variable for generic scheduler function	---	---	…
Efd07	Activ.Time Bands	Day of the week	---	---	MON, ..., SUN
	TB1: --:-- -> --:--	Time band 1 enabling and definition: start hour and minute, end hour and minute (suction line 1)	---	…	…
	…	…	…	…	…
	TB4: --:-- -> --:--	Time band 4 enabling and definition: start hour and minute, end hour and minute (suction line 1)	---	…	…
	Changes	Time band changes action	---	---	--- CONFIRM&SAVE LOAD PREVIOUS CLEAR ALL
	Copy to	Copy settings to other days	0	---	MONDAY…SUNDAY; MON-FRI; MON-SAT; SAT&SUN; ALL DAYS
Efe05	Gen.A Measure	Generic analogue input A unit of measure selection	°C	---	°C; °F; barg; psig; %; ppm -
	…	…	…	…	…

Mask index	Display description	Description	Default	UOM	Values
Efe06/Efe07 (**)	---	Generic probe A position	B1	---	---, B1…B10 (****)
	---	Generic probe A type	4...20mA	---	…(**)
	--- (display only)	Generic probe A value	---	…	…(**)
	Upper value	Generic probe A max. limit	30.0 barg	…	…(**)
	Lower value	Generic probe A min. limit	0.0 barg	…	…(**)
	Calibration	Generic probe A adjustment	0.0 barg	…	…(**)
…	...	...	…	…	…
Efe16	DI	Generic digital input F DI position	---	---	---, 01…18, B1…B10 (****)
	Status (display only)	Status of generic digital input F DI	---	---	Closed / Open
	Logic	Logic of generic digital input F DI	NC	---	NC / NO
	Function (display only)	Status of generic digital input F DI	---	---	Not active / active
…	...	...	…	…	…
Efe21	DO	Generic stage 1 DO position	…	---	---, 01…29 (****)
	Status (display only)	Status of generic stage 1 DO	---	---	Closed / Open
	Logic	Logic of generic stage 1 DO	NO	---	NC / NO
	Function (display only)	Generic stage 1 DO function status	---	---	Not active / active
…	…	…	…	…	…
Efe29	Modulating.1	Generic modulating 1 AO position	0	---	---, 01…06 (****)
	Status (display only)	Generic modulating 1 output value	0	%	0.0…100.0
…	…	…	…	…	…
Egaa01	DI	ChillBooster fault DI position (line 1)	---	---	---, 01…18, B1…B10 (****)
	Status (display only)	Status of ChillBooster fault DI (line 1)	---	---	Closed / Open
	Logic	Logic of ChillBooster fault DI (line 1)	NC	---	NC / NO
	Function (display only)	Status of ChillBooster fault (line 1)	---	---	Not active / active
Egaa02	DO	ChillBooster DO position (line 1)	…	---	---, 01…29 (****)
	Status (display only)	Status of ChillBooster DO (line 1)	---	---	Closed / Open
	Logic	Logic of ChillBooster DO (line 1)	NO	---	NC / NO
	Function (display only)	Status of ChillBooster function (line 1)	---	---	Not active / active
Egab01	Device present	Enable ChillBooster function (line 1)	NO	---	NO / YES
	Deactivation when fanspower falls under	Fan capacity under which ChillBooster is deactivated (line 1)	95	%	0…100
Egab02	Before the activation fans at max for	Fans work at maximum capacity at least for this time before ChillBooster activation (line 1)	5	min	0…300
	Ext.Temp.Thr.	Outside temperature threshold for ChillBooster activation (line 1)	30.0 °C	…	…(**)
Egab03	Sanitary proc.	Enable hygiene procedure (line 1)	DISAB.	---	DISABLE / ENABLE
	start at	Hygiene procedure starting time (line 1)	00:00	---	…
	Duration	Hygiene procedure duration (line 1)	0	min	0…30
	Ext.temp.thr	Outside temperature threshold for hygiene procedure activati. (line 1)	5.0 °C	…	…(**)
Egab04	ChillBooster requires maintenance after	ChillBooster maximum running time (line 1)	200	h	0…999
	Reset maintenance time	ChillBooster maintenance time reset (line 1)	NO	---	NO / YES
Ehb01	Avoid simultaneous pulses betw.lines	Enable simultaneous compressor start up inhibition	NO	---	NO / YES
	Delay	Delay between start up for compressors on different lines	0	s	0…999
Ehb03	Force off L2 Comp.s for line 1 fault	Enable line 2 compressor switch OFF due to line 1 compressor fault	NO	---	NO / YES
	Delay	Delay for line 2 compressor switch off after serious alarm on line 1 compressors	0	s	0…999

Mask index	Display description	Description	Default	UOM	Values
Ehb04	Switch on L1 Comp.s for L2 activation	Enable line 1 compressor switch ON due to line 2 compressor switch ON	NO	---	NO / YES
	Switch on period	Delay for line1 compressor switch on for line 2 compressor switch on	30	s	0…999
	Force off line 2 if line 1 is off	Enable line 2 compressor switch OFF due to line 1 switch OFF	NO	---	NO / YES
Ehb05	Enable min threshold for L1 activation	Enable L1 activation by DSS only when suction pressure is greater than a minimum threshold	NO	---	NO / YES
	Threshold	Minimum threshold for line 1 activation by DSS	---	…	… (**)

The following parameters refer to line 2, for details see the corresponding parameters for line 1 above

Mask index	Display description	Description	Default	UOM	Values
Eaba04	---	Oil temperature probe position (line 2)	B1	---	---, B1…B10 (****)
	---	Oil temperature probe type (line 2)	4...20mA	---	--- NTC - PT1000 - 0-1V - 0-10V - 4...20mA - 0-5V - HTNTC
	--- (display only)	Oil temperature probe value (line 2)	---	…	…(**)
	Upper value	Oil temperature probe max. limit (line 2)	30.0 barg	…	…(**)
	Lower value	Oil temperature probe min. limit (line 2)	0.0 barg	…	…(**)
	Calibration	Oil temperature probe adjustment (line 2)	0.0 barg	…	…(**)
…	…	…	…	…	…
Eabb04	Oil pumps number	Number of oil pumps for common oil cooler (line 2)	0	---	0 to 1 (digital input) 0 to 2 (Digital outputs)
	Enable Aout pump	Enable AO of common oil cooler pump (line 2)	YES	---	NO (Digital outputs) YES (digital input)
…	…	…	…	…	…
Ebba01	DO	Subcooling valve DO position (line 2)	…	---	---, 01…29 (****)
	Status (display only)	Status of subcooling valve DO (line 2)	---	---	Closed / Open
	Logic	Logic of subcooling valve (line 2)	NO	---	NC / NO
	Function (display only)	Subcooling valve function status (line 2)	---	---	Not active Active
…	…	…	…	…	…
Ebbb01	Subcooling control	Enable subcooling function (line2)	NO	---	NO / YES
	---	Subcooling control type (line 2)	COND&LIQUID TEMP.	---	COND&LIQUID TEMP. LIQUID TEMP. ONLY
	Threshold	Threshold for subcooling control (line 2)	0.0 °C	…	-9999,9…9999,9
	Subcool.value (display only)	Value of subcooling (line 2)	0.0 °C	…	-999,9…999,9
…	…	…	…	…	…
Ecbb04	Economizer	Enable economizer function (line 2)	NO	---	NO / SI
	Compr.Power Thr.	Capacity percent threshold for economizer activation (line 2)	0	%	0…100
	Press.Lim.	Condensing temperature threshold for economizer activation (line 2)	0.0 °C	…	-999,9…999,9
	Disch.T.Thr.	Discharge temperature threshold for economizer activation (line 2)	0.0 °C	…	-999,9…999,9
…	…	…	…	…	…

Mask index	Display description	Description	Default	UOM	Values
Edba01	---	Compressor 1 discharge temperature probe position (line 2)	B1	---	---, B1…B10 (****)
	---	Compressor 1 discharge temperature probe type (line 2)	4...20mA	---	--- NTC - PT1000 - 0-1V - 0-10V - 4...20mA - 0-5V - HTNTC
	--- (display only)	Compressor 1 discharge temperature probe value (line 2)	---	…	…(**)
Edba01	Upper value	Compressor 1 discharge temperature probe max. limit (line 2)	30.0 barg	…	…(**)
	Lower value	Compressor 1 discharge temperature probe min. limit (line 2)	0.0 barg	…	…(**)
	Calibration	Compressor 1 discharge temperature probe adjustment (line 2)	0.0 barg	…	…(**)
…	…	…	…	…	…
Edbb01	Liquid Injection	Enable liquid injection function (line 2)	DIS	---	DIS / AB
	Threshold	Liquid injection setpoint (line 2)	70.0 °C	…	… (**)
	Differential	Liquid injection differential (line 2)	5.0	…	… (**)
…	…	…	…	…	…
Eeba02	DI	Heat recovery from digital input DI position (line 2)	…	---	---, 01…18, B1…B10 (****)
	Status	Status of heat recovery DI (line 2)	---	---	Closed / Open
	Logic	Logic of heat recovery DI (line 2)	NC	---	NC / NO
	Function	Status of heat recovery from digital input DI function (line 2)	---	---	Not active / active
Eebb01	Enable Heat Reclaim	Enable heat recovery function (line 2)	NO	---	NO / SI
…	…	…	…	…	…
Egba01	DI	ChillBooster fault DI position (line 2)	---	---	---, 01…18, B1…B10 (****)
	Status	Status of ChillBooster fault DI (line 2)	---	---	Closed / Open
	Logic	Logic of ChillBooster fault DI (line 2)	NC	---	NC / NO
	Function	Status of ChillBooster fault DI (line 21)	---	---	Not active / active
…	…	…	…	…	…
Egbb01	Device present	ChillBooster function enable (line 2)	NO	---	NO / SI
	Deactivation when fanspower falls under	Fans capacity under which ChillBooster is deactivated (line 2)	95	%	0…100
…	…	…	…	…	…

F.settings

Mask index	Display description	Description	Default	UOM	Values
Faaa01	Summer/Winter	Enable Summer/Winter period management (line 1)	NO	---	NO / SI
	Special days	Enable special days management (line 1)	NO	---	NO / SI
	Holiday periods	Enable holiday period management (line 1)	NO	---	NO / SI
Faaa02	Begin	Summer period beginning date (line 1)	---	---	01/Gen…31/Dic
	End	Summer period end date (line 1)	---	---	01/Gen…31/Dic
Faaa03	Day 01	Special day 1 date (line 1)	---	---	01/Gen…31/Dic
…	…	…	…	…	…
Faaa04	Day 10	Special day 10 date (line 1)	---	---	01/Gen…31/Dic
Faaa05	P1	Holiday period P1 beginning date (line 1)	---	---	01/Gen…31/Dic
	---	Holiday period P1 end date (line 1)	---	---	01/Gen…31/Dic
	…	…	…	…	…
	P5	Holiday period P5 beginning date (line 1)	---	---	01/Gen…31/Dic
	---	Holiday period P5 end date (line 1)	---	---	01/Gen…31/Dic

Mask index	Display description	Description	Default	UOM	Values
Faab01	Date format	Date format	DD/MM/YY	---	---- DD/MM/YY MM/DD/YY YY/MM/DD
Faab02/Faab03/ Faab04	Hour	Hour and minute	…	…	…
	Date	Date	…	…	…
	Day (display only)	Day of the week calculated from current date	…	…	Monday… Sunday
Faab05	Daily saving time	Enable daylight saving time	DISAB.	---	DISABLE / ENABLE
	Transition time	Offset time	60	---	0…240
	Start, ...	Starting week, day and month and hour for daylight saving time	…	…	…
	End, ...	End week, day and month and hour for daylight saving time	…	…	…
Fb01	Language	Current language	ENGLISH	---	…
Fb02	Disable language mask at start-up	Disable the change language screen at start-up	YES	---	NO / SI
	Countdown	Starting value for countdown, time change language screen active.	60	s	0…60
Fb03	Main mask selection	Main screen selection	LINE 1	---	LINE 1 LINE 2 DOUBLE SUCTION DOUBLE CONDENSER
Fca01	Address	Address of the controller in a supervisory system network (line 1)	196	---	0 to 207
	Protocol	Supervisor communication protocol (line 1)	pRACK MANA-GER	---	-- CAREL SLAVE LOCAL CAREL SLAVE REMOTE MODBUS SLAVE pRACK MANAGER CAREL SLAVE GSM
	Baudrate	Supervisor communication baud rate (line 1)	19200	---	1200 to 19200
Fd01	Insert password	Password	0000	---	0…9999
	Logged as (display only)	Current password level	---	---	User, Service, Manufacturer
Fd02	Logout	Logout	NO	---	NO / SI
Fd03	User	User password	0000	---	0…9999
	Service	Service password	1234	---	0…9999
	Manufacturer	Manufacturer password	1234	---	0…9999

The following parameters refer to line 2, for details see the corresponding parameters for line 1 above

Fcb01	Address	Enable summer/winter period management (line 2)	196	---	0…207
	Protocol	Enable special days management (line 2)	pRACK MANAGER	---	-- CAREL SLAVE LOCAL CAREL SLAVE REMOTE MODBUS SLAVE pRACK MANAGER CAREL SLAVE GSM
	Baudrate	Enable holiday period management (line 2)	19200	---	1200…19200

Mask index	Display description	Description	Default	UOM	Values
G.Safety					
Gba01	Prevent enable	Enable condensing pressure prevent (line 1)	NO	---	NO SI
Gba02	Setpoint	Condensing pressure prevent threshold (line 1)	0.0 barg	…	… (**)
	Differential	Condensing pressure prevent differential (line 1)	0.0 barg	…	0.0…99,9
	Decrease compressor power time	Decreasing capacity time (line 1)	0	s	0…999
Gba03	Enable Heat Reclaim as first prevent step	Enabling heat recovery as first stage for condensing HP prevent (line 1)	NO	---	NO SI
	Offset HeatR.	Offset between heat recovery and prevent setpoint (line 1)	0.0 barg	…	0.0…99,9
Gba04	Enable ChillBooster as first prevent step	Enable ChillBooster as first stage for condensing HP prevent (line 1)	NO	---	NO SI
	Offset Chill.	Offset between ChillBooster and prevent setpoint (line 1)	0.0 barg	…	0.0…99,9
Gba05	Prevent max.num	Maximum number of prevent allowed before locking compressor (line 1)	3	---	1…5
	Prevent max.number evaluation time	Prevent maximum number evaluation time	60	h	0…999
	Reset automatic prevent	Reset number of prevent (line 1)	NO	---	NO / SI
Gca01	Common HP type	Type of reset for common HP alarm (line 1)	AUTO	---	AUTO / MAN
	Common HP delay	Common high pressure delay (line 1)	10	s	0…999
Gca02	Common LP start delay	Low common condensing pressure delay at start up (line 1)	60	s	0…999
	Common LP delay	Low common condensing pressure delay during operation (line 1)	20	s	0…999
Gca03	Time of semi-automatic alarm evaluation	Period of LP evaluation (line 1)	120	min	0…999
	N° of reties before alarm becomes manual	Number of LP in period after which the alarm becomes manual (line 1)	5	---	0…999
Gca04	Liquid alarm delay	Liquid level alarm delay (line 1)	0	s	0…999
	Oil alarm delay	Common oil alarm delay (line 1)	0	s	0…999
Gca05	Output alarms relays activation with	Select alarm relay output activation for active alarms or alarms not reset	Active alarms		Active alarms Alarms not reset

The following parameters refer to line 2, for details see the corresponding parameters for line 1 above

Gbb01	Prevent enable	Enable condensing pressure prevent (line 2)	NO	---	NO / SI
…	…	…	…	…	…
Gcb01	Common HP type	Type of reset for common HP alarm (line 2)	AUTO	---	AUTO / MAN
	Common HP delay	Common high pressure delay (line 2)	10	s	0…999
…	…	…	…	…	…

Mask index	Display description	Description	Default	UOM	Values
H.Info					
H01 (display only)	Ver.	Software version and date	…	---	…
	Bios	Bios version and date	…	---	…
	Boot	Boot version and date	…	---	…
H02 (display only)	Board type	Type of hardware	…	---	…
	Board size	Hardware size	…	---	…
	Total flash	Flash memory size	---	kB	…
	RAM	RAM size	---	kB	…
	Built-In type	Type of built-in display	---	---	None / PGD1
	Main cycle	Number of cycles per second and software cycle time	---	cicli/s ms	…

Mask index	Display description	Description	Default	UM	Values
I.setUP					
Ia01	Pre-configuration	Pre-configuration selected	01. RS2	---	--NOT USED— 01. RS2 02. RS3 03. RS3p 04. RS3i 05. RS4 06. RS4i 07. SL3d 08. SL5d 09. SW1 10. SW2 11. SW3 12. d-RS2 13. d-RS3 14. d-RS4
Ia02 (solo visua.)	Boards necessary	pLAN boards required for the selected pre-configuration	---	---	---
Ia03 (solo visua.)	Suction line	Number of suction lines featured in the pre-configuration	---	---	0…2
	Condenser line	Number of condenser lines featured in the pre-configuration	---	---	0…2
Ia04 (display only)	Num.Comp. L1	Number of compressors featured in the pre-configuration (line 1)	…	---	1…12
	Comp.type L1	Type of compressors featured in the pre-configuration (line 1)	RECIPROCATING	---	RECIPROCATING SCROLL SCREW
	Num.Comp. L2	Number of compressors featured in the pre-configuration (line 2)	…	---	1…12
	Comp.type L2	Type of compressors featured in the pre-configuration (line 2)	RECIPROCATING	---	RECIPROCATING SCROLL
Ia05 (display only)	Num.alarms per comp.	Number of alarms for compressor featured in the pre-configuration	1/4 (*)	---	0…4/7 (*)
	Cond.Gen.Alarm	Enable common condenser alarm	EN	---	EN/DIS
	HP comm.pressostat	Enable common HP pressure switch	EN	---	EN/DIS
	LP comm.pressostat	Enable common LP pressure switch	EN	---	EN/DIS
Ib01	Type of Installation	Type of system	SUCTION + CONDENSER	---	SUCTION CONDENSER SUCTION + CONDENSER

Mask index	Display description	Description	Default	UM	Values
Ib02	Measure Units	Unit of measure	°C/barg	---	°C/barg / °F/psig
Ib03	Compressors type	Type of compressors (line 1)	RECIPROCATING	---	RECIPROCATING SCROLL SCREW
	Compressors number	Number of compressors (line 1)	2/3 (*)	---	1…6/12 (*)
Ib04	Number of alarms for each compressor	Number of alarms for each compressor (line 1)	1	---	0…4/7 (*)
Ib05	Modulate speed device	Modulating speed device for first compressor (line 1)	None	---	NONE INVERTER ---/DIGITAL SCROLL(*) ---/STEPLESS*)
Ib30	Compressors sizes	Compressors sizes (line 1)	SAME CAPACITY & SAME STAGE CONF.	---	SAME CAPAC.&SAME STAGE CONF. SAME CAPAC.&DIFF. STAGE CONF. DEFINE SIZES
Ib34	S1	Enable size and size for compressor group 1 (line 1)	YES 10.0	--- kW	NO / YES 0.0…500.0
	…	…	…	…	…
	S4	Enable size and size for compressor group 4 (line 1)	NO ---	--- kW	NO / YES 0.0…500.0
Ib35	S1	Enable stages and stages for compressor group 1 (line 1)	YES 100	--- %	NO/SI. 100; 50/100; 50/75/100; 25/50/75/100; 33/66/100
	…	…	…	…	…
	S4	Enable stages and stages for compressor group 4 (line 1))	NO ---	--- kW	NO / YES S1…S4
Ib36	C01	Size group for compressor 1 (line 1) or presence of inverter	S1	---	S1…S4/INV
	…	…	…	…	…
	C12	Size group for compressor 12 (line 1)	S1	---	S1…S4
Ib10	Compr.Manufacturer	Compressor manufacturer for screw compressors	Generic	---	GENERIC BITZER REFCOMP HANBELL
	Compressor series	Compressor series	…(***)	---	…(***)
Ib11	Compressors sizes	Compressor sizes (line 1)	SAME CAPACITY	---	SAME CAPACITY DEFINE SIZES
Ib16	S1	Enable size and size for compressor group 1 (line 1)	SI ---	--- kW	NO/SI 0.0…500.0
	…	…	…	…	…
	S4	Enable size and size for compressor group 4 (line 1)	NO ---	--- kW	NO/SI 0.0…500.0
---	---				
Ib17	C01	Size group for compressor 1 (line 1) or presence of inverter	S1	---	S1…S4/INV
	…	…	…	…	…
	C06	Size group for compressor 12 (line 1)	---	---	S1…S4

Mask index	Display description	Description	Default	UM	Values
Ib20	Compressors sizes	Compressors sizes (line 1)	SAME CAPACITY	---	SAME CAPACITY DEFINE SIZES
Ib21	S1	Enable size and size for compressor group 1 (line 1)	SI ---	--- kW	NO/YES 0.0…500.0
	…	…	…	…	…
	S4	Enable size and size for compressor group 4 (line 1)	NO ---	--- kW	NO/YES 0.0…500.0
Ib22	C01	Size group for compressor 1 (line 1) or presence of inverter	S1	---	S1…S4/INV
	…	…	…	…	…
	C12	Size group for compressor 6 (line 1)	S1	---	S1…S4
Ib40	Regulation by	Compressor control by temperature or pressure (line 1)	PRESSURE	---	PRESSURE / TEMPERATURE
	Measure unit	Unit of measure (line 1)	barg	---	…
Ib40	Refrigerant	Type of refrigerant (suction Line 1)	R404A	---	R22 - R134a - R404A - R407C - R410A - R507A - R290 - R600 - R600a - R717 - R744 - R728 - R1270 - R417A - R422D
Ib41	Regulation type	Compressor control type (line 1)	Neutral zone	---	Proportional band Neutral zone
	Enable integral time action	Enable integral time for proportional suction line control (line 1)	NO	---	NO / YES
Ib42	Setpoint	Setpoint without compensation (suction line 1)	3.5 barg	…(**)	…(**)
	Differential	Differential (suction line 1)	0.3 barg	…(**)	…(**)
Ib43	Configure another suction line	Second suction line configuration	NO	---	NO / YES
Ib45	Dedicated pRack board for suction line	Suction lines on different boards	NO	---	NO / YES
Ib50	Compressors type	Type of compressors (line 2)	RECIPROCAT.	---	RECIPROCATING / SCROLL
	Compressors number	Number of compressors (line 2)	3	---	1…12
Ib51	Number of alarms for each compressor	Number of alarms for each compressor (line 2)	1	---	0…4
Ib52	Modulate speed device	Modulating speed device for first compressor (line 2)	NONE	---	NONE INVERTER ---/DIGITAL SCROLL(*)
Ib70	Compressors sizes	Compressors sizes (line 1)	SAME CAPACITY	---	SAME CAPAC.&SAME STAGE CONF. SAME CAPAC.&DIFF. STAGE CONF. DEFINE SIZES
Ib74	S1	Enable size and size for compressor group 1 (line 1)	SI ---	--- kW	NO/YES 0.0…500.0
	…	…	…	…	…
	S4	Enable size and size for compressor group 4 (line 1)	NO ---	--- kW	NO/YES 0.0…500.0
Ib75	S1	Enable stages and stages for compressor group 1 (line 1)	SI 100	--- %	NO/YES 100; 50/100; 50/75/100; 25/50/75/100; 33/66/100
	…	…	…	…	…
	S46	Enable stages and stages for compressor group 4 (line 1))	NO ---	--- kW	NO/YES S1…S4

Mask index	Display description	Description	Default	UM	Values
Ib76	C01	Size group for compressor 1 (line 1) or presence of inverter	S1	---	S1…S4/INV
	…	…	…	…	…
	C12	Size group for compressor 6 (line 1)	S1	---	S1…S4
Ib60	Compressors sizes	Compressors sizes (line 1)	SAME CAPACITY	---	SAME CAPACITY / DEFINE SIZES
Ib61	S1	Enable size and size for compressor group 1 (line 1)	SI ---	--- kW	NO/YES 0.0…500.0
	…	…	…	…	…
	S4	Enable size and size for compressor group 4 (line 1)	NO ---	--- kW	NO/YES 0.0…500.0
Ib62	C01	Size group for compressor 1 (line 1) or presence of inverter	S1	---	S1…S4/INV
	…	…	…	…	…
	C12	Size group for compressor 6 (line 1)	S1	---	S1…S4
Ib80	Regulation by	Compressor control by temperature or pressure (line 1)	PRESSURE	---	PRESSURE / TEMPERATURE
	Measure unit	Unit of measure (line 1)	barg	---	…
	Refrigerant	Type of refrigerant (suction Line 1)	R404A	---	R22 - R134a - R404A - R407C - R410A - R507A - R290 - R600 - R600a - R717 - R744 - R728 - R1270 - R417A - R422D
Ib81	Regulation type	Compressor control type (line 1)	Neutral zone	---	Proportional band Neutral zone
	Enable integral time action	Enable integral time for proportional suction line control (line 2)	NO	---	NO / SI
Ib82	Setpoint	Setpoint without compensation (suction line 2)	3.5 barg	…(**)	…(**)
	Differential	Differential (suction line 2)	0.3 barg	…(**)	…(**)
Ib90	Dedicated pRack board for condenser line	Suct.line(s) and cond.line(s) on different boards, that is, condenser line(s) on dedicated board	NO	---	NO/YES
Ib91	Fans number	Number of fans (line 1)	3	---	0…16
Ib54	Modulate speed device	Fan modulating speed device (line 1)	NONE	---	NESSUNO INVERTER CONTR. TAGLIO DI FASE
Ib93	Regulation by	Fans control by temperature or pressure value (line 1)	PRESSURE	---	PRESSIONE / TEMPERATURA
	Measure unit	Unit of measure (line 1)	barg	---	…
Ib93	Refrigerant	Type of refrigerant (condenser line 1)	R404A	---	R22 - R134a - R404A - R407C - R410A - R507A - R290 - R600 - R600a - R717 - R744 - R728 - R1270 - R417A - R422D
Ib94	Regulation type	Fan control type (line 1)	Proportional band	---	Proportional band Neutral zone
	Enable integral time action	Enable integral time for proportional band control	NO	---	NO/YES
Ib95	Setpoint	Setpoint without compensation (condenser line 1)	12.0 barg	…(**)	…(**)
	Differential	Differential (condenser line 1)	2.0 barg	…(**)	…(**)
Ib96	Configure another condensing line	Second condenser line configuration	NO	---	NO/YES
Ib1a	Fans number	Number of fans (line 2)	3	---	0…16

Mask index	Display description	Description	Default	UM	Values
…	…	…	…	…	…
Ib1e	Differential	Differential (condenser line 2)	2.0 barg	…(**)	…(**)
Ic01	Type of Installation	Type of plant	ASPIRAZ+ CON-DENSAZ.	---	ASPIRAZIONE CONDENSAZIONE ASPIRAZ. + CONDENSAZ.
Ic02	Measure Units	Unit of measure	°C/barg	---	°C/barg / °F/psig
Ic03	Number of suction lines	Number of suction lines	1	---	0…2
Ic04	Dedicated pRack board for suction line	Suction lines are on different boards	NO	---	NO/YES
Ic05	Compressors type	Type of compressors (line 1)	RECIPROCATING	---	RECIPROCATING SCROLL SCREW
	Compressors number	Number of compressors (line 1)	4	---	1…6/12 (*)
Ic06	Compressors type	Type of compressors (line 2)	RECIPROCATING	---	RECIPROCATING SCROLL SCREW
	Compressors number	Number of compressors (line 2)	0	---	1…6
Ic07	Number of condensing lines	Number of condenser lines in the system	1	---	0…2
Ic08	Line 1	Number of fans (line 1)	4	---	0…16
	Line 2	Number of fans (line 2)	0	---	0…16
Ic09	Dedicated pRack board for condenser line	Condenser lines are on different boards	NO	---	NO/YES
Ic10 (solo visual.)	Boards necessary	pLAN boards required for the selected pre-configuration	---	---	---
Id01	Save configuration	Save Manufacturer configuration	NO	---	NO/YES
	Load configuration	Manual installation of Manufacturer configuration	NO	---	NO/YES
Id02	Restore Carel default	Manual installation of Carel default values	NO	---	NO/YES

(*) Depending on the type of compressor
(**) Depending on the unit of measure selected
(***) Depending on the compressor manufacturer, see relative paragraph
(****) Depending on the hardware size

NOTE:

NOTE:

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